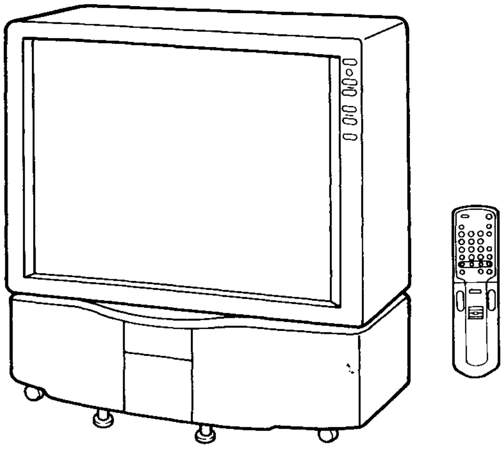
KPR-46XBR15/53XBR15

RM-Y114

SERVICE MANUAL



US Model

KPR-46XBR15
Chassis No. SCC-F19B-A
KPR-53XBR15
Chassis No. SCC-F19C-A

Canadian Model

KPR-53XBR15
Chassis No. SCC-F23B-A

AP CHASSIS

MODELS OF THE SAME SERIES	
KPR-41EXR95	
KPR-46XBR15/53XBR15	

SPECIFICATIONS

Structure	Screen and projector, rear projection type
Projection system	3 picture tubes, 3 lenses, horizontal in-line system
Picture tube	5.5 inch high-brightness monochrome tubes, with optical coupling and cooling system
Projection lenses	High performance, large-diameter hybrid lens F 1.0
Screen material	Acrylic plastic lenticular, Polycarbonate plastic Fresnel

Resolution

KPR-46XBR15	850 lines
KPR-53XBR15	900 lines

Optimal viewing area	Within approx. 75 degrees from center

Projected picture size (in inches, measured diagonally)

KPR-46XBR15	46	KPR-53XBR15	53

Screen brightness (cd/m²)

KPR-46XBR15	1600	KPR-53XBR15	1250

Television system	American TV standards
Channel coverage	VHF: 2 – 13 UHF: 14 – 69 Cable TV: 1 – 125
Antenna	75 ohm external antenna terminal for VHF/UHF
Input jacks	VIDEO IN 1, 2 and 3 S VIDEO IN (4-pin mini DIN) Y: 1 Vp-p, 75-ohms unbalanced, sync negative C: 0.286 Vp-p (Burst signal) 75-ohms Video (phono jacks): 1 Vp-p, 75-ohms unbalanced, sync negative Audio (phono jacks): 500 mVrms (100% modulation) Impedance: 47 kilohms

SONY QTY
WRPC(AS)
996487801

COLOR REAR VIDEO PROJECTOR

SONY®

MICROFILM

996487801

Output jacks	MONITOR OUT S VIDEO MONITOR OUT (4-pin mini DIN) Y: 1 Vp-p, 75-ohms unbalanced, sync negative Video (phono jacks): 1 Vp-p, 75-ohms unbalanced, sync negative Audio (phono jacks): 500 mVrms (100% modulation) Impedance: 10 kilohms AUDIO (VAR) OUT (phono jacks) More than 900 mVrms (100% modulation) at the maximum volume setting (variable) Impedance: 5 kilohms AUDIO OUT (phono jacks) 900 mVrms (100% modulation) Impedance: 5 kilohms
Speaker	Woofer 12 cm (4¾ inches) diameter Tweeter 2.5 cm (1 inch) diameter
Speaker output	20 W x 2 (CENTER) 10 W x 2 (REAR)
CENTER SPEAKER input	16Ω NORM. 30 W MAX 50 W
Power requirements	120 V AC, 60 Hz
Power consumption	

	max.	avg.	standby mode
KPR-46XBR15	350	280	7
KPR-53XBR15	350	280	7

	Dimension (w/h/d)	Weight
KPR-46XBR15	1103.9 x 1289.1 x 511.8 mm (43½ x 50¾ x 20¼ inches)	91 kg (200 lbs 10 oz)
KPR-53XBR15	1237.9 x 1338.1 x 614.6 mm (48¾ x 52¾ x 24¼ inches)	94 kg (207 lbs 3 oz)

Supplied accessories	Remote Commander RM-Y114 (1) with 2 size AA (R6) EVEREADY batteries
Optional accessories	U/V mixer EAC-66 Connecting cable RK-74A VMC-810S/820S YC-15V/30V VCR Tray SU-PJT1

Design and specifications are subject to change without notice.

(●) SOUND RETRIEVAL SYSTEM

The (●) Sound Retrieval System is manufactured by Sony Corporation under license from the Hughes Aircraft Company, a subsidiary of GM Hughes Electronics. It is covered by U.S. Patent No. 4,748,669. Other U.S. and foreign patents pending.

(●) , SOUND RETRIEVAL SYSTEM and SRS® are trademarks of the Hughes Aircraft Company, a subsidiary of GM Hughes Electronics..

(CAUTION)

SHORT CIRCUIT THE ANODE OF THE PICTURE TUBE AND THE ANODE CAP TO THE METAL CHASSIS, CRT SHIELD, OR CARBON PAINTED ON THE CRT, AFTER REMOVING THE ANODE.

WARNING!!

AN ISOLATION TRANSFORMER SHOULD BE USED DURING ANY SERVICE TO AVOID POSSIBLE SHOCK HAZARD, BECAUSE OF LIVE CHASSIS.
THE CHASSIS OF THIS RECEIVER IS DIRECTLY CONNECTED TO THE AC POWER LINE.

SAFETY-RELATED COMPONENT WARNING !!

COMPONENTS IDENTIFIED BY SHADING AND MARK ⚠ ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY. CIRCUIT ADJUSTMENTS THAT ARE CRITICAL TO SAFE OPERATION ARE IDENTIFIED IN THIS MANUAL. FOLLOW THESE PROCEDURES WHENEVER CRITICAL COMPONENTS ARE REPLACED OR IMPROPER OPERATION IS SUSPECTED.

(ATTENTION)

APRES AVOIR DECONNECTE LE CAP DE L'ANODE, COURTCIRCUITER L'ANODE DU TUBE CATHODIQUE ET CELUI DE L'ANODE DU CAP AU CHASSIS METALLIQUE DE L'APPAREIL, OU AU COUCHE DE CARBONE PEINTE SUR LE TUBE CATHODIQUE OU AU BLINDAGE DU TUBE CATHODIQUE.

ATTENTION!!

AFIN D'EVITER TOUT RISQUE D'ELECTROCUTION PROVENANT D'UN CHÁSSIS SOUS TENSION, UN TRANSFORMATEUR D'ISOLEMENT DOIT ETRE UTILISÉ LORS DE TOUT DÉPANNAGE.
LE CHÁSSIS DE CE RÉCEPTEUR EST DIRECTEMENT RACCORDÉ Á L'ALIMENTATION SECTEUR.

ATTENTION AUX COMPOSANTS RELATIFS ÁLA SÉCURITÉ!!

LES COMPOSANTS IDENTIFIÉS PAR UNE TRAME ET PAR UNE MAPQUE ⚠ SUR LES SCHÉMAS DE PRINCIPE, LES VUES EXPLOSÉES ET LES LISTES DE PIECES CONT D'UNE IMPORTANCE CRITIQUE POUR LA SÉCURITÉ DU FONCTIONNEMENT. NE LES REMPLACER QUE PAR DES COMPOSANTS SONY DONT LE NUMÉRO DE PIÈCE EST INDIQUÉ DANS LE PRÉSENT MANUEL OU DANS DES SUPPLÉMENTS PUBLIÉS PAR SONY. LES RÉGLAGES DE CIRCUIT DONT L'IMPORTANCE EST CRITIQUE POUR LA SÉCURITÉ DU FONCTIONNEMENT SONT IDENTIFIES DANS LE PRÉSENT MANUEL. SUIVRE CES PROCÉDURES LORS DE CHAQUE REMPLACEMENT DE COMPOSANTS CRITIQUES, OU LORSQU'UN MAUVAIS FONCTIONNEMENT EST SUSPECTÉ.

SAFETY CHECK-OUT

(US Model only)

After correcting the original service problem, perform the following safety checks before releasing the set to the customer:

1. Check the area of your repair for unsoldered or poorly-soldered connections. Check the entire board surface for solder splashes and bridges.
2. Check the interboard wiring to ensure that no wires are "pinched" or contact high-wattage resistors.
3. Check that all control knobs, shields, covers, ground straps, and mounting hardware have been replaced. Be absolutely certain that you have replaced all the insulators.
4. Look for unauthorized replacement parts, particularly transistors, that were installed during a previous repair Point them out to the customer and recommend their replacement.
5. Look for parts which, though functioning, show obvious signs of deterioration. Point them out to the customer and recommend their replacement.
6. Check the line cord for cracks and abrasion. Recommend the replacement of any such line cord to the customer.
7. Check the condition of the monopole antenna (if any).
   Make sure the end is not broken off, and has the plastic cap on it. Point out the danger of impalement on a broken antenna to the customer, and recommend the antenna's replacement.
8. Check the B+ and HV to see they are at the values specified. Make sure your instruments are accurate; be suspicious of your HV meter if sets always have low HV.
9. Check the antenna terminals, metal trim, "metallized" knobs, screws, and all other exposed metal parts for AC leakage. Check leakage as described below.

LEAKAGE

The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5 mA (500 microampers). Leakage current can be measured by any one of three methods.

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers' instructions to use these instruments.
2. A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.
3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The "limit" indication is 0.75 V, so analog meters must have an accurate low-voltage scale. The Simpson 250 and Sanwa SH-63Trd are examples of a passive VOM that is suitable. Nearly all battery operated digital multimeters that have a 2V AC range are suitable. (See Fig. A)

HOW TO FIND A GOOD EARTH GROUND

A cold-water pipe is guaranteed earth ground; the cover-plate retaining screw on most AC outlet boxes is also at earth ground. If the retaining screw is to be used as your earth-ground, verify that it is at ground by measuring the resistance between it and a coldwater pipe with an ohmmeter. The reading should be zero ohms. If a cold-water pipe is not accessible, connect a 60-100 watts trouble light (not a neon lamp) between the hot side of the receptacle and the retaining screw. Try both slots, if necessary, to locate the hot side of the line, the lamp should light at normal brilliance if the screw is at ground potential. (See Fig. B)

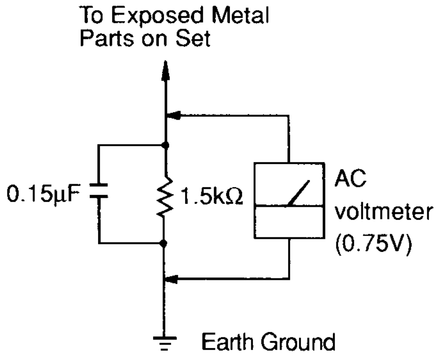


Fig. A. Using an AC voltmeter to check AC leakage.

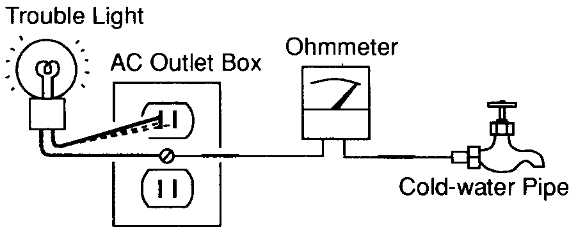


Fig. B. Checking for earth ground.

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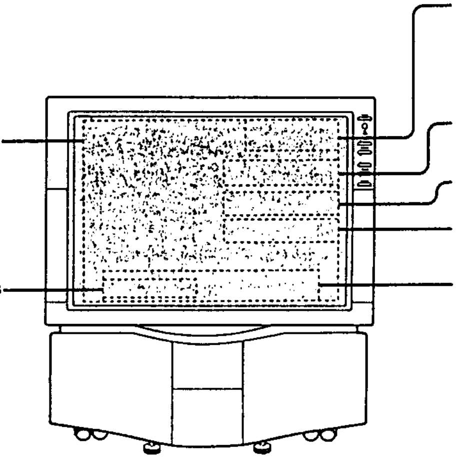
SECTION 1
GENERAL

The operating instructions mentioned here are partial abstracts from the Operating Instruction Manual. The page numbers of the Operating Instruction Manual remein as in the manual.

1-1. LOCATING CONTROLS AND CONNECTORS

For details, see the pages indicated by the numbered black circles ●

Front



On-screen menu displays

CURRENT TIME displays ㊱ (64)

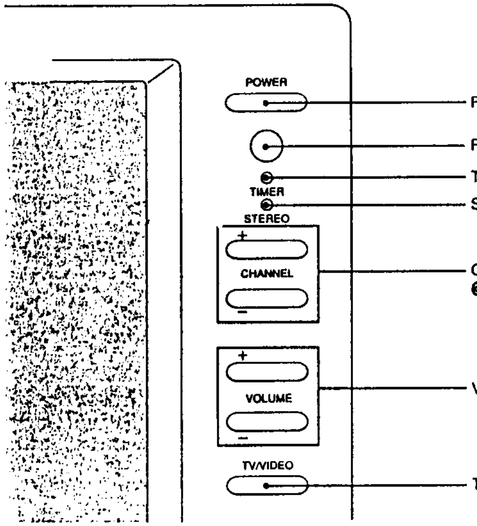
Main picture input mode/video label
Channel number display
SLEEP, MUTING displays ㊱

Channel caption display ㊳

MTS (SAP) mode display ㊳ (56)

PIP (Picture-in-Picture) input mode display ㊹

Bar display for volume, picture or sound adjustment ㊲ ㊻ – ㊾ (55) (58)



POWER button*

Remote control detector

TIMER indicator lamp (66)

STEREO indicator lamp (56)

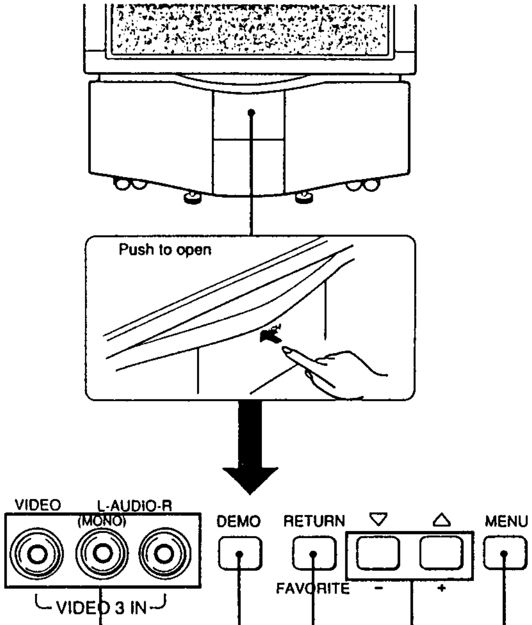
CHANNEL +/– buttons* ㉛ ㉝ ㊱ (59) (76)

VOLUME +/– buttons* ⑲ ㊲ – ㊳

TV/VIDEO button*

* Buttons with the same function are also located on the Remote Commander (p. 10).

Front inner panel



MENU button*

A/V window ▲+/▼– buttons

RETURN/FAVORITE button

DEMO button ㊴

VIDEO 3 IN (input) jacks (VIDEO/L(MONO)-AUDIO-R) ⑯ ⑱ ㊹

* Buttons with the same function are also located on the Remote Commander (p. 10).

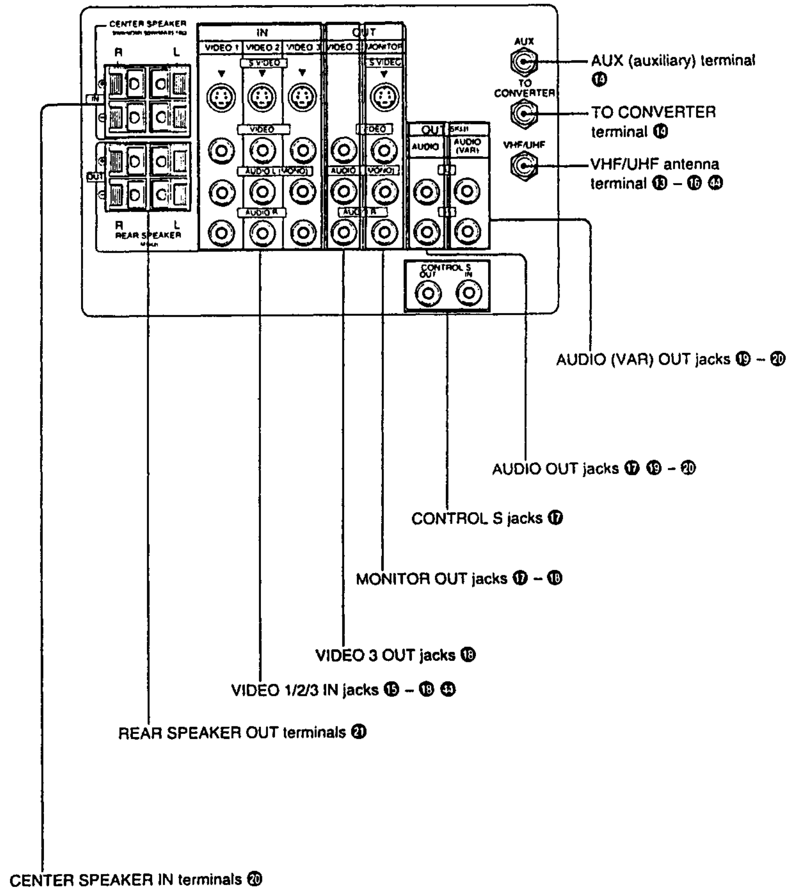
Note

The instructions in this manual are based for the most part on operating the projection TV with the Remote Commander. You can also use the buttons on the projection TV that have the same function.

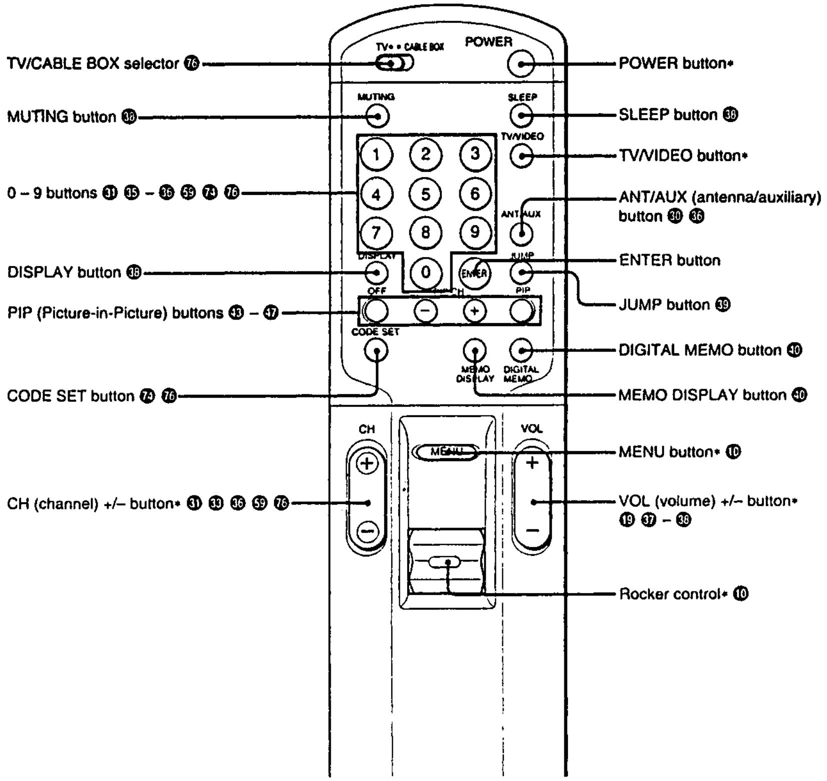
The following are controls that are of different types, but have exactly the same function.

Projection TV	A/V window ▲+/▼– buttons	RETURN button
Remote Commander	Rocker control (press up or down)	Rocker control (click)

Rear


CENTER SPEAKER
R
L
IN
OUT
REAR SPEAKER
VIDEO 1
VIDEO 2
VIDEO 3
MONITOR
S VIDEO
VIDEO
AUDIO
AUDIO (VAR)
CONTROL S
OUT
IN
AUX
TO CONVERTER
VHF/UHF
AUX (auxiliary) terminal ⑭
TO CONVERTER terminal ⑭
VHF/UHF antenna terminal ⑬ – ⑯ ㊹
AUDIO (VAR) OUT jacks ⑲ – ⑳
AUDIO OUT jacks ⑰ ⑲ – ⑳
CONTROL S jacks ⑰
MONITOR OUT jacks ⑰ – ⑱
VIDEO 3 OUT jacks ⑱
VIDEO 1/2/3 IN jacks ⑮ – ⑱ ㊹
REAR SPEAKER OUT terminals ㉑
CENTER SPEAKER IN terminals ⑳

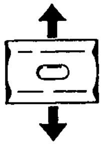
Remote Commander RM-Y114 (Outer panel controls)


TV/CABLE BOX selector ⑯
MUTING button ㊳
0 – 9 buttons ㉛ ㉟ – ㊱ (59) (74) (76)
DISPLAY button ㊳
PIP (Picture-in-Picture) buttons ㊸ – ㊼
CODE SET button (74) (76)
CH (channel) +/– button* ㉛ ㉝ ㊱ (59) (76)
POWER button*
SLEEP button ㊳
TV/VIDEO button*
ANT/AUX (antenna/auxiliary) button ㉚ ㊱
ENTER button
JUMP button ㊴
DIGITAL MEMO button ㊵
MEMO DISPLAY button ㊵
MENU button* ⑩
VOL (volume) +/– button* ⑲ ㊲ – ㊳
Rocker control* ⑩
POWER
MUTING
SLEEP
TV/VIDEO
ANT/AUX
DISPLAY
JUMP
ENTER
PIP
CODE SET
MEMO DISPLAY
DIGITAL MEMO
CH
VOL
MENU

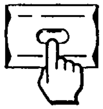
Using the rocker control

Use the rocker control to make on-screen menu selections (see p. 22).

Press the control up or down to make a selection.



Click the control to execute the selection.

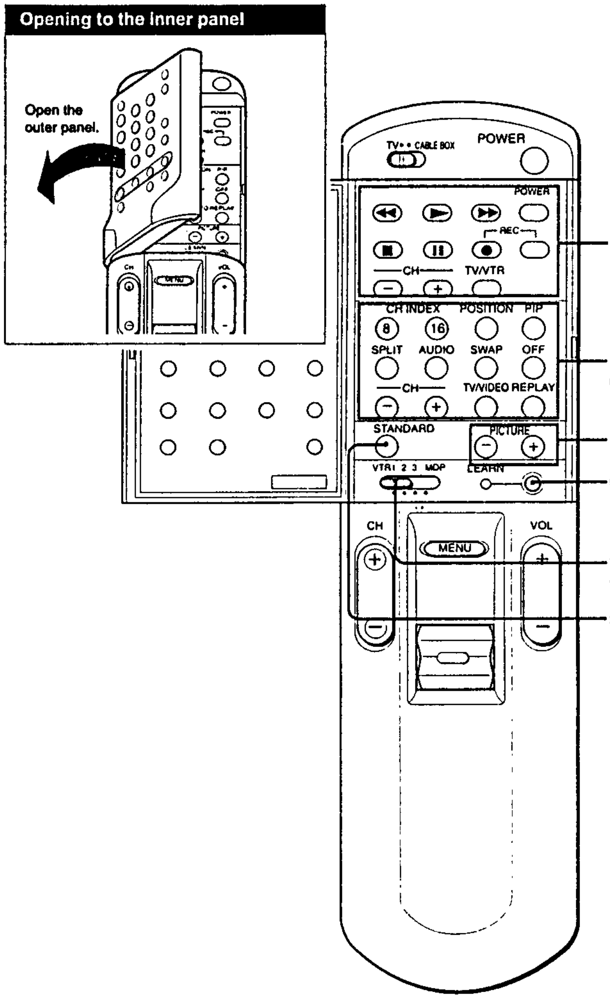


* Buttons with the same function are also located on the projection TV (pp. 7 – 8).

Note
If the TV/CABLE BOX selector is set to CABLE BOX, the Remote Commander is able to control a connected cable box, not the projection TV (p. 72). Set the selector to TV to control the projection TV with the Remote Commander.

Remote Commander RM-Y114 (Inner panel controls)

Opening to the inner panel


Open the outer panel.
TV• • CABLE BOX
POWER
POWER
REC
CH
TV/VTR
CH INDEX
POSITION
PIP
8
16
SPLIT
AUDIO
SWAP
OFF
CH
TV/VIDEO
REPLAY
STANDARD
PICTURE
VTR1 2 3 MDP
LEARN
CH
VOL
MENU

Video operating buttons (72) – (73)

PIP (Picture-in-Picture) buttons ㊸ – ㊼

PICTURE +/– buttons ㊾

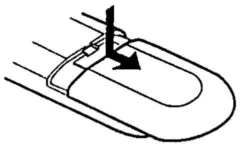
LEARN button and indicator (77)

VTR1-2-3 MDP selector (72) – (74) (77) – (79)

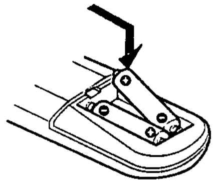
STANDARD button ㊷ ㊾

Installing batteries in the Remote Commander

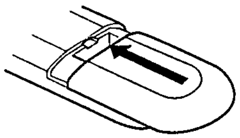
1 Push open the lid (rear of the Remote Commander).



2 Install two size AA (R6) batteries so that the ⊕ and ⊖ ends are inserted as shown.



3 Replace the lid.



About battery life
Under normal operation, batteries will last up to half a year. If the Remote Commander does not operate properly, the batteries might be worn out. Replace both of them with new ones.

To avoid damage from possible battery leakage
Remove the batteries if you do not plan to use the Remote Commander for a fairly long time.

1-2. MAKING ANTENNA CONNECTIONS

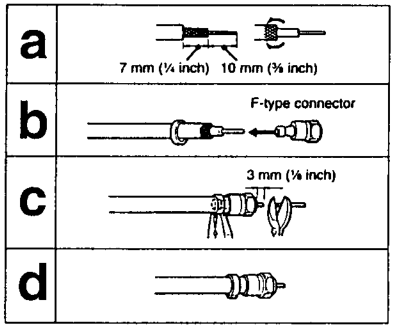
Although you can use either an indoor or outdoor antenna with the projection TV, an outdoor antenna will provide you with better picture quality.
You can receive cable TV by connecting a cable supplied by your local cable company.

Connecting a VHF, UHF or VHF/UHF combination antenna*, or CATV cable

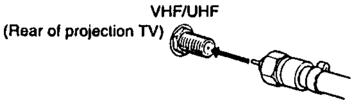
Check your antenna cable type. If you have 75-ohm coaxial cable (round), attach an F-type connector (not supplied). If you have 300-ohm twin-lead cable (flat), attach a 300-75 ohm adaptor (not supplied).

Using 75-ohm coaxial cable (round)

1 Prepare the end of the cable by attaching the F-type connector as shown below.

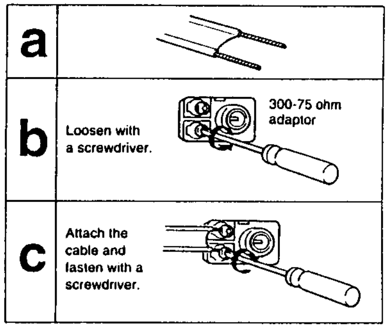

a
7 mm (¼ inch)
10 mm (⅜ inch)
b
F-type connector
c
3 mm (⅛ inch)
d

2 Plug the connector into the VHF/UHF terminal at the rear of the projection TV.


VHF/UHF
(Rear of projection TV)

Using 300-ohm twin-lead cable (flat)

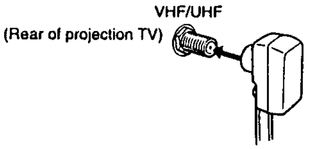
1 Prepare the end of the cable by attaching the 300-75 ohm adaptor as shown below.


a
b
300-75 ohm adaptor
c

b Loosen with a screwdriver.

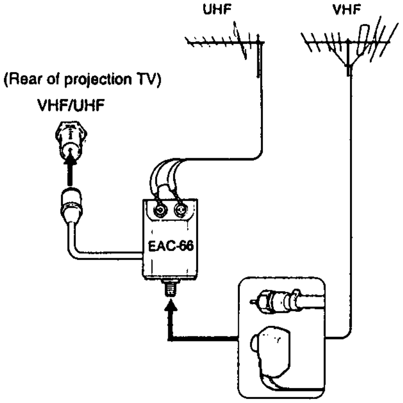
c Attach the cable and fasten with a screwdriver.

2 Plug the adaptor into the VHF/UHF terminal at the rear of the projection TV.


VHF/UHF
(Rear of projection TV)

- Most combination antennas are equipped with a signal splitter. Remove the splitter and attach the appropriate connector.

Connecting both VHF and UHF antennas


UHF
VHF
(Rear of projection TV)
VHF/UHF
EAC-66

Use an EAC-66 U/V mixer (not supplied).

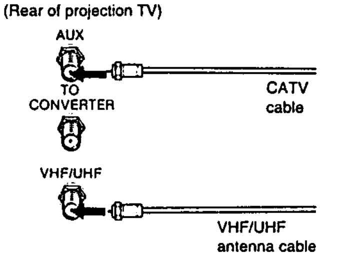
1 Prepare the VHF antenna cable using the appropriate connector (p. 13).

2 Connect the cable to the U/V mixer.

3 Connect the U/V mixer to the VHF/UHF terminal.

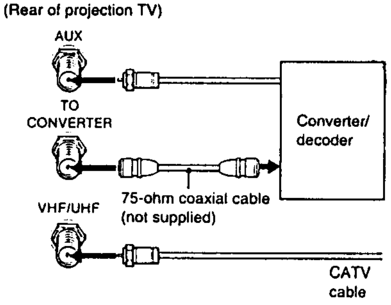
When you use the U/V mixer
Snow and noise may appear in the picture when viewing cable TV channels over 37 (W + 1).

Connecting both VHF/UHF antennas and a CATV cable


(Rear of projection TV)
AUX
TO CONVERTER
CATV cable
VHF/UHF
VHF/UHF antenna cable

Note
Do not connect anything to the TO CONVERTER terminal in this case.

Connecting a cable with a pay cable TV system converter/decoder*


(Rear of projection TV)
AUX
TO CONVERTER
Converter/decoder
VHF/UHF
75-ohm coaxial cable (not supplied)
CATV cable

Pay cable TV systems use scrambled or encoded signals and require special converters (decoders) in addition to the normal cable connection.

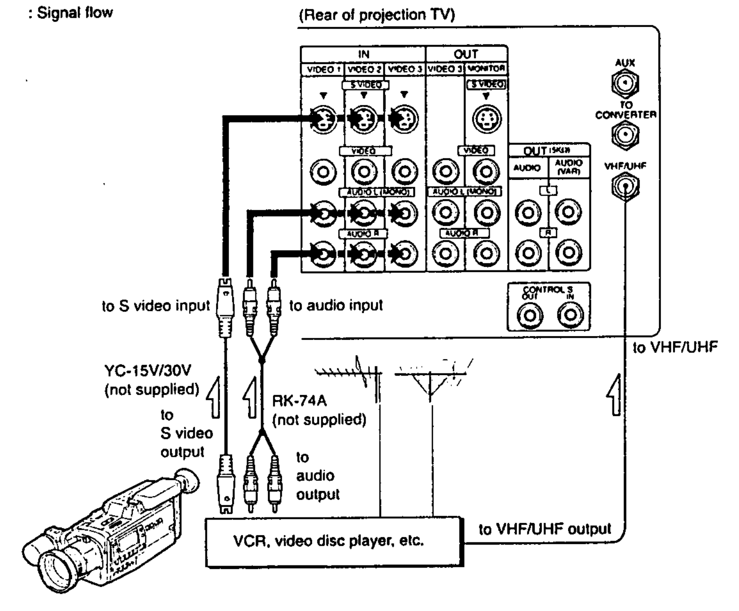
- The special converter/decoder will be supplied by the cable company.

1-3. CONNECTING OTHER EQUIPMENT

After making these connections, you will be able to do the following:

- View the playback of video tapes
- Record TV programs
- Record one TV program while viewing another program

Connecting a VCR, video disc player or Camcorder equipped with an S video output jack


: Signal flow
(Rear of projection TV)
IN
OUT
VIDEO 1
VIDEO 2
VIDEO 3
VIDEO 3
MONITOR
S VIDEO
VIDEO
AUDIO L (MONO)
AUDIO R
OUT
AUDIO
AUDIO (VAR)
L
R
CONTROL S
OUT
IN
AUX
TO CONVERTER
VHF/UHF
to S video input
to audio input
to VHF/UHF
YC-15V/30V
(not supplied)
to S video output
RK-74A
(not supplied)
to audio output
VCR, video disc player, etc.
to VHF/UHF output

Preparing for use

1 Turn on the projection TV.

2 Set S-VIDEO to "ON" (p. 52).

3 Press TV/VIDEO on the projection TV or on the Remote Commander so that "VIDEO 1," "VIDEO 2" or "VIDEO 3" appears on the screen.
VIDEO 1: for equipment connected to VIDEO 1 IN
VIDEO 2: for equipment connected to VIDEO 2 IN
VIDEO 3: for equipment connected to VIDEO 3 IN

To return to TV mode
Press TV/VIDEO or CHANNEL +/– on the projection TV, or press TV/VIDEO, CH +/– or 0 – 9 and ENTER on the Remote Commander so that a channel number appears on the screen.

Note
You can watch both a TV and a VCR image at once, using Picture-in-Picture (pp. 43 – 47).

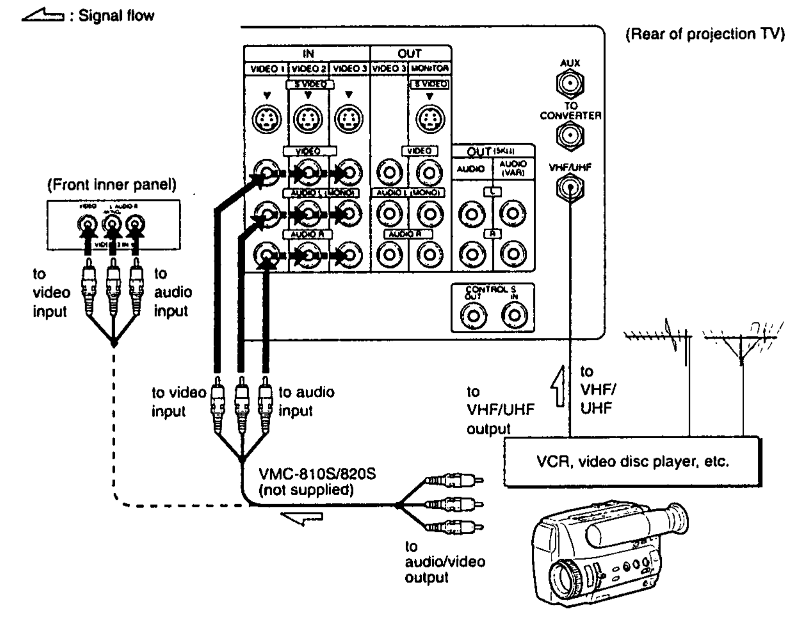
Operating the equipment

To operate the video equipment, refer to the instruction manual that comes with the equipment.

You can operate a Sony VCR or video disc player, or a non-Sony VCR with the supplied Remote Commander. For details, see "Using the Programmable Remote Commander" (pp. 72 – 79).

About S video input
Video input and output signals can be separated into Y (luminance or brightness) and C (chroma or color) signals. Usually these two signals are combined in a VCR and sent as one signal to a projection TV. Separation of the Y and C signals prevents them from interfering with one another, thereby improving picture (especially color) quality.
This projection TV is equipped with S video input jacks through which these separated signals can be input directly.

Connecting a VCR, video disc player or Camcorder not equipped with an S video output jack


: Signal flow
(Rear of projection TV)
IN
OUT
VIDEO 1
VIDEO 2
VIDEO 3
VIDEO 3
MONITOR
S VIDEO
VIDEO
AUDIO L (MONO)
AUDIO R
OUT
AUDIO
AUDIO (VAR)
L
R
CONTROL S
OUT
IN
AUX
TO CONVERTER
VHF/UHF
(Front inner panel)
to video input
to audio input
to video input
to audio input
VMC-810S/820S
(not supplied)
to audio/video output
to VHF/UHF output
to VHF/UHF
VCR, video disc player, etc.

Preparing for use

1 Turn on the projection TV.

2 Press TV/VIDEO on the projection TV or on the Remote Commander so that "VIDEO 1," "VIDEO 2" or "VIDEO 3" appears on the screen.
VIDEO 1: for equipment connected to VIDEO 1 IN
VIDEO 2: for equipment connected to VIDEO 2 IN
VIDEO 3: for equipment connected to VIDEO 3 IN

Operating the equipment

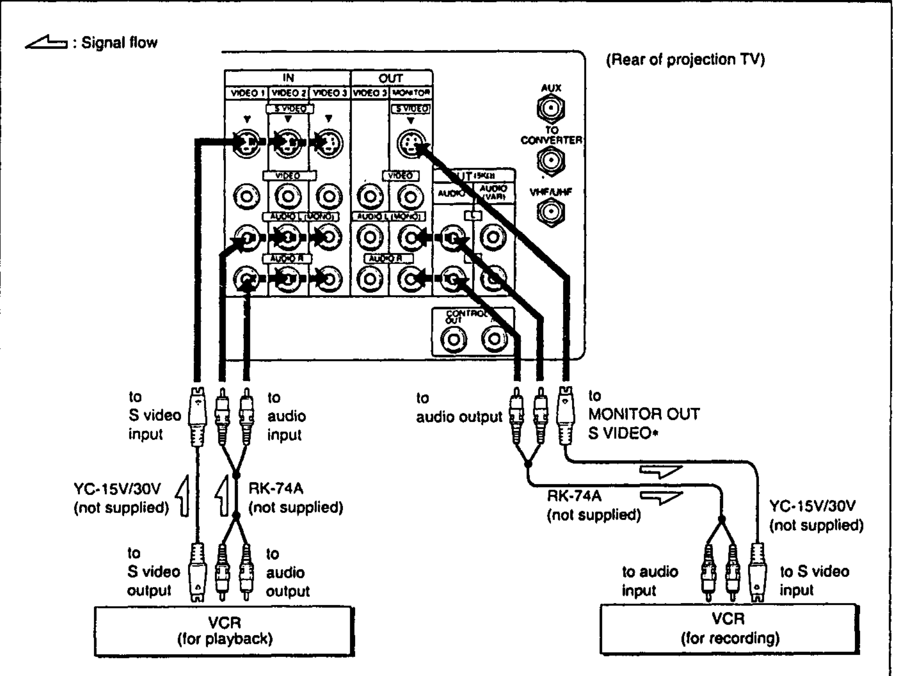
Same as p. 15.

To return to TV mode
Press TV/VIDEO or CHANNEL +/– on the projection TV, or press TV/VIDEO, CH +/– or 0 – 9 and ENTER on the Remote Commander so that a channel number appears on the screen.

Notes

- If you try to use equipment that is connected to the front and rear VIDEO 3 IN jacks at the same time, the picture will be distorted. Be sure you turn off one piece of equipment first.
- If you have connected to a Camcorder's input jacks, do not connect to the projection TV's input jacks.
- You can label each of the video input modes (p. 57).
- You do not need to select a video mode when you use the direct play function (pp. 74 – 75).
- If you connect a monaural VCR, connect the audio output of the VCR to the L (MONO) jack of VIDEO IN (1, 2 or 3). The monaural sound will be heard from both speakers.
- If equipment is connected to the rear VIDEO 3 IN S video jack, and you want to watch the signal input from the front VIDEO 3 IN jacks, set S-VIDEO to "OFF."

Connecting two VCRs (equipped with an S video output jack) for tape editing


: Signal flow
(Rear of projection TV)
IN
OUT
VIDEO 1
VIDEO 2
VIDEO 3
VIDEO 3
MONITOR
S VIDEO
VIDEO
AUDIO L (MONO)
AUDIO R
OUT (9Ω)
AUDIO
AUDIO (VAR)
CONTROL S OUT IN
AUX
TO CONVERTER
VHF/UHF
to S video input
to audio input
to audio output
to MONITOR OUT S VIDEO•
YC-15V/30V (not supplied)
RK-74A (not supplied)
to S video output
to audio output
VCR (for playback)
RK-74A (not supplied)
YC-15V/30V (not supplied)
to audio input
to S video input
VCR (for recording)

Preparing for use/Operating the equipment

Same as p. 15.

Note

Do not change the input signal while editing through MONITOR OUT, or the output signal will also change.

- It is not necessary to connect to the MONITOR OUT S VIDEO jack to receive the S video input signal. You can make the connection as shown above, or connect the MONITOR OUT jacks to the VCR for recording, using the VMC-810S/820S connector (not supplied).

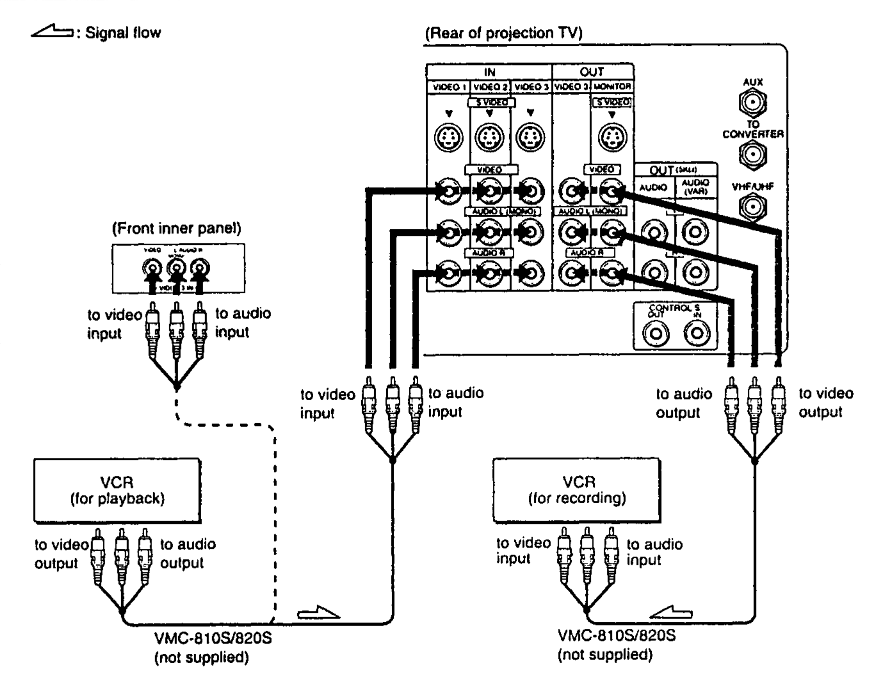
Caution
Video tapes and other materials may be copyrighted. Unauthorized recording of such material may be contrary to the provisions of the copyright laws.

About the CONTROL S jacks

Make the following connections to control the projection TV and connected equipment with one Remote Commander.

- Connect the equipment to CONTROL S IN to control the projection TV with the other equipment's remote commander.
- Connect the equipment to CONTROL S OUT to control the other equipment with the projection TV's Remote Commander.

Connecting two VCRs (not equipped with an S video output jack) for tape editing


: Signal flow
(Rear of projection TV)
IN
OUT
VIDEO 1
VIDEO 2
VIDEO 3
VIDEO 3
MONITOR
S VIDEO
VIDEO
AUDIO L (MONO)
AUDIO R
OUT (9Ω)
AUDIO
AUDIO (VAR)
CONTROL S OUT IN
AUX
TO CONVERTER
VHF/UHF
(Front inner panel)
VIDEO L (MONO) R
VIDEO 3 IN
to video input
to audio input
VCR (for playback)
to video output
to audio output
VMC-810S/820S (not supplied)
to video input
to audio input
to audio output
to video output
VCR (for recording)
to video input
to audio input
VMC-810S/820S (not supplied)

Preparing for use

1 Turn on the projection TV.

2 Press TV/VIDEO on the projection TV or on the Remote Commander so that "VIDEO 1," "VIDEO 2" or "VIDEO 3" appears on the screen.
VIDEO 1: for equipment connected to VIDEO 1 IN
VIDEO 2: for equipment connected to VIDEO 2 IN
VIDEO 3: for equipment connected to VIDEO 3 IN

Notes

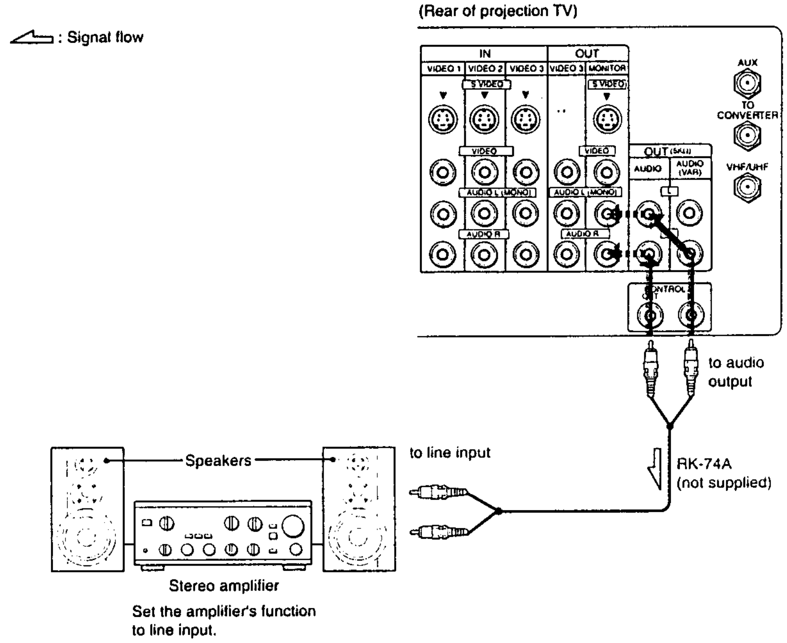
- If you try to use equipment that is connected to the front and rear VIDEO 3 IN jacks at the same time, the picture will be distorted. Be sure you turn off one piece of equipment first.
- If you have connected to a Camcorder's input jacks, do not connect to the projection TV's input jacks.
- If you connect equipment to the rear VIDEO 3 IN S VIDEO jack, you cannot receive the output signal from the VIDEO 3 OUT VIDEO jack.

Watching a different image while duplicating

The VIDEO 3 OUT jacks only output the signal from the VIDEO 3 input jacks.
If you connect a VCR for playback to the front or rear VIDEO 3 IN jacks, and a VCR for recording to the VIDEO 3 OUT jacks to duplicate your recorded tapes, you can watch input images different from the image being output for recording.

To watch a different input image
Press TV/VIDEO on the projection TV or on the Remote Commander to select the input image you want to watch.

Connecting a stereo audio system


: Signal flow
(Rear of projection TV)
IN
OUT
VIDEO 1
VIDEO 2
VIDEO 3
VIDEO 3
MONITOR
S VIDEO
VIDEO
AUDIO L (MONO)
AUDIO R
OUT
AUDIO
AUDIO (VAR)
CONTROL S
AUX
TO CONVERTER
VHF/UHF
to audio output
RK-74A
(not supplied)
to line input
Speakers
Stereo amplifier

Set the amplifier's function to line input.

Preparing for use

Display the mode set menu and set SPEAKER to "CENTER" to cut off the projection TV speaker sound (p. 57), and listen to the projection TV's sound solely through the audio system speakers.

Adjusting the sound level

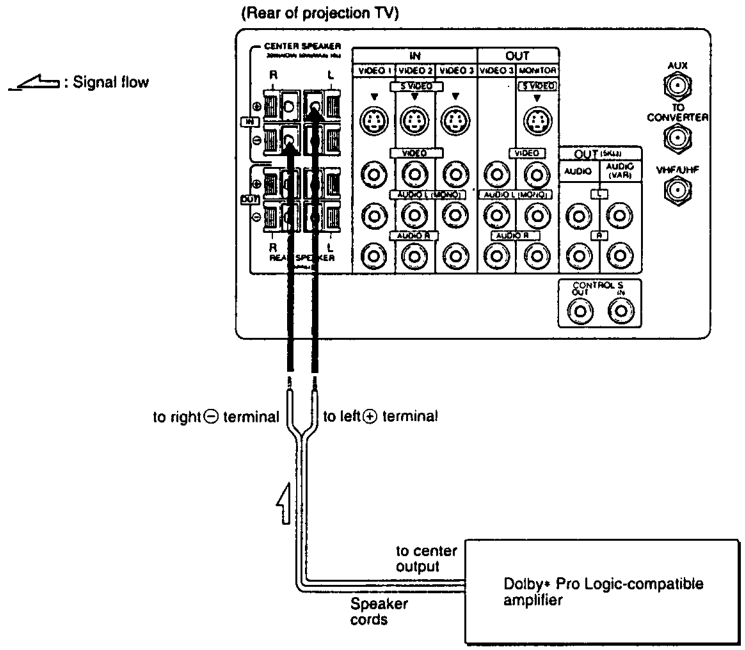
If you connect your stereo system to AUDIO (VAR) OUT, leave the amplifier volume, bass and treble controls at their mid-position, and adjust the level with the VOLUME +/– buttons on the projection TV or the VOL +/– buttons on the Remote Commander.

If you connect your stereo system to AUDIO OUT, adjust the speaker volume with the stereo amplifier controls.

Note

By connecting to AUDIO (VAR) OUT, you can adjust the bass, treble and balance, or select a sound mode or an MTS (Multichannel TV Sound) mode, using the on-screen menus (pp. 53 – 56).

Using the TV speakers as center speakers


: Signal flow
(Rear of projection TV)
CENTER SPEAKER
R
L
IN
OUT
REAR SPEAKER
IN
OUT
VIDEO 1
VIDEO 2
VIDEO 3
VIDEO 3
MONITOR
S VIDEO
VIDEO
AUDIO L (MONO)
AUDIO R
AUDIO
AUDIO (VAR)
CONTROL S
OUT
IN
AUX
TO CONVERTER
VHF/UHF
to right⊖ terminal
to left⊕ terminal
to center output
Speaker cords
Dolby* Pro Logic-compatible amplifier

Preparing for use

You can only connect a Dolby* Pro Logic-compatible amplifier to CENTER SPEAKER IN; always make the connection as shown above. Never connect to the right (R ⊕⊖) or left (L ⊕⊖) terminals only.

After making the connections, display the mode set menu and set SPEAKER to "CENTER" to cut off the projection TV speaker sound (p. 57) and listen to the projection TV's sound solely through the audio system speakers.

Caution

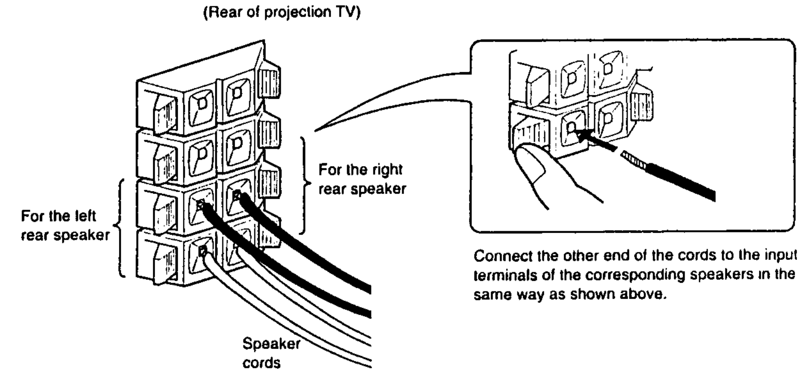
- Always turn off the amplifier power before connecting to CENTER SPEAKER IN.
- Always match the speaker cord and terminal colors when making the connection.

Adjusting the sound level

Adjust the speaker volume with the amplifier controls.

- Manufactured under license from Dolby Laboratories Licensing Corporation. Additionally licensed under one or more of the following patents: U.S. numbers 3,632,886, 3,746,792 and 3,959,590. "Dolby" and the double-D symbol ▯▯ are trademarks of Dolby Laboratories Licensing Corporation.

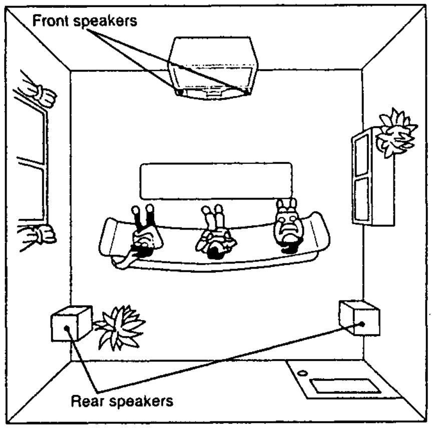
Connecting external speakers (not supplied) as rear speakers


(Rear of projection TV)
For the right rear speaker
For the left rear speaker
Speaker cords

Connect the other end of the cords to the input terminals of the corresponding speakers in the same way as shown above.

Preparing for use

You can connect optional speakers mounted to a rear wall to create a surround effect. After connecting the rear speakers, set REAR SPEAKER to "YES" (p. 58).

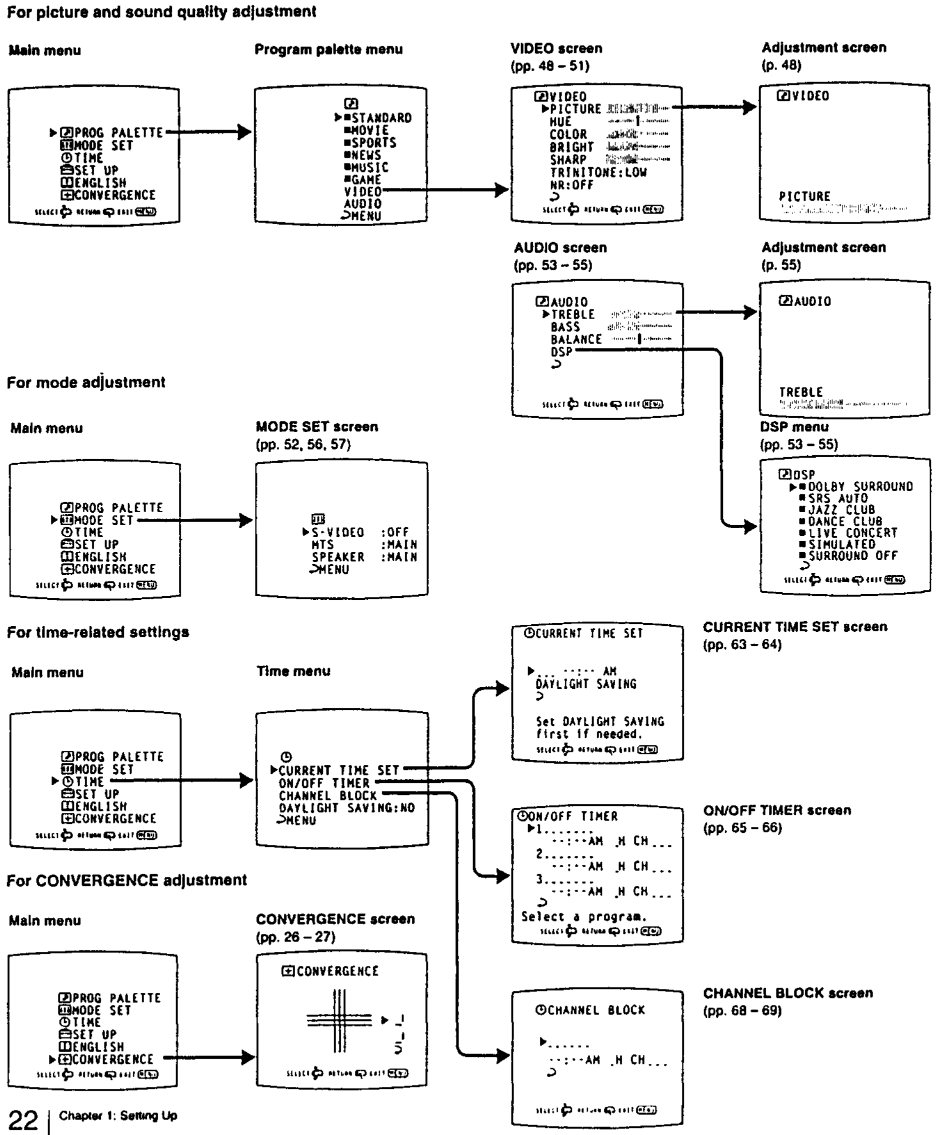

Front speakers
Rear speakers

Caution

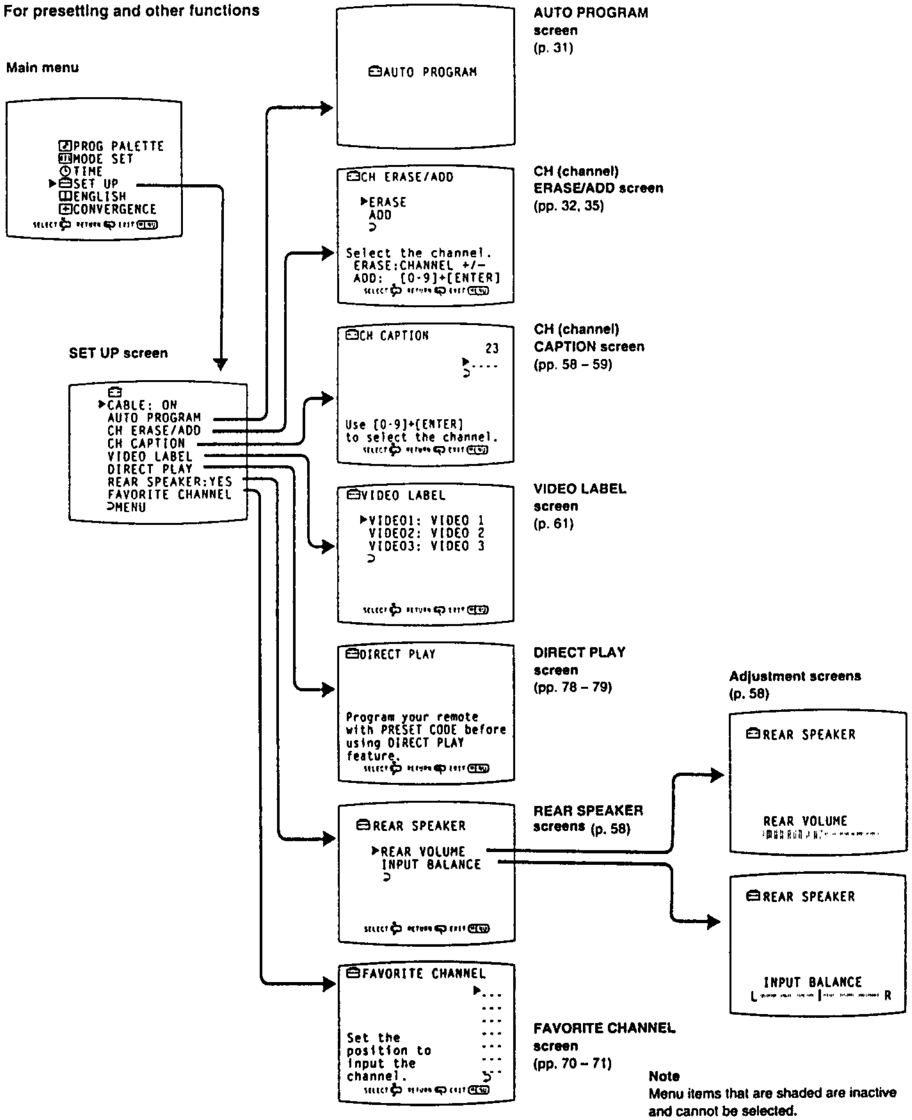
- If you connect external speakers, they must be rated at over 8-ohm impedance (with normal power holding capacity of more than 5 W).
- Always match the speaker cord and terminal colors when making the connections.
- Unplug the projection TV when making the connections. If the exposed speaker cord wires touch while the projection TV is plugged in, the projection TV may short-circuit and be damaged.
- Do not pull on the speaker cords.

1-4. USING THE ON-SCREEN MENUS

The following flow chart shows the different levels of on-screen menus that you can use to make various adjustments and settings. See the indicated pages for instructions on using each feature.


For picture and sound quality adjustment
Main menu
▶PROG PALETTE
MODE SET
TIME
SET UP
ENGLISH
CONVERGENCE
SELECT RETURN EXIT MENU
Program palette menu
▶■STANDARD
■MOVIE
■SPORTS
■NEWS
■MUSIC
■GAME
VIDEO
AUDIO
MENU
VIDEO screen
(pp. 48 – 51)
VIDEO
▶PICTURE
HUE
COLOR
BRIGHT
SHARP
TRINITONE:LOW
NR:OFF
Adjustment screen
(p. 48)
VIDEO
PICTURE
AUDIO screen
(pp. 53 – 55)
AUDIO
▶TREBLE
BASS
BALANCE
DSP
Adjustment screen
(p. 55)
AUDIO
TREBLE
DSP menu
(pp. 53 – 55)
DSP
▶■DOLBY SURROUND
■SRS AUTO
■JAZZ CLUB
■DANCE CLUB
■LIVE CONCERT
■SIMULATED
■SURROUND OFF
For mode adjustment
Main menu
PROG PALETTE
▶MODE SET
TIME
SET UP
ENGLISH
CONVERGENCE
MODE SET screen
(pp. 52, 56, 57)
▶S-VIDEO :OFF
MTS :MAIN
SPEAKER :MAIN
MENU
For time-related settings
Main menu
PROG PALETTE
MODE SET
▶TIME
SET UP
ENGLISH
CONVERGENCE
Time menu
▶CURRENT TIME SET
ON/OFF TIMER
CHANNEL BLOCK
DAYLIGHT SAVING:NO
MENU
CURRENT TIME SET
▶... --:-- AM
DAYLIGHT SAVING
Set DAYLIGHT SAVING first if needed.
CURRENT TIME SET screen
(pp. 63 – 64)
ON/OFF TIMER
▶1.......
--:--AM .H CH...
2.......
--:--AM .H CH...
3.......
--:--AM .H CH...
Select a program.
ON/OFF TIMER screen
(pp. 65 – 66)
CHANNEL BLOCK
▶......
--:--AM .H CH...
CHANNEL BLOCK screen
(pp. 68 – 69)
For CONVERGENCE adjustment
Main menu
PROG PALETTE
MODE SET
TIME
SET UP
ENGLISH
▶CONVERGENCE
CONVERGENCE screen
(pp. 26 – 27)
CONVERGENCE

For presetting and other functions


Main menu
PROG PALETTE
MODE SET
TIME
▶SET UP
ENGLISH
CONVERGENCE
SELECT RETURN EXIT MENU
SET UP screen
▶CABLE: ON
AUTO PROGRAM
CH ERASE/ADD
CH CAPTION
VIDEO LABEL
DIRECT PLAY
REAR SPEAKER:YES
FAVORITE CHANNEL
MENU
AUTO PROGRAM
CH ERASE/ADD
▶ERASE
ADD
CH CAPTION
23
▶....
VIDEO LABEL
▶VIDEO1: VIDEO 1
VIDEO2: VIDEO 2
VIDEO3: VIDEO 3
DIRECT PLAY
REAR SPEAKER
▶REAR VOLUME
INPUT BALANCE
FAVORITE CHANNEL
Adjustment screens
(p. 58)
REAR SPEAKER
REAR VOLUME
REAR SPEAKER
INPUT BALANCE
L R

AUTO PROGRAM screen (p. 31)

CH (channel) ERASE/ADD screen (pp. 32, 35)

Select the channel.
ERASE:CHANNEL +/−
ADD: [0-9]+[ENTER]

CH (channel) CAPTION screen (pp. 58 – 59)

Use [0-9]+[ENTER]
to select the channel.

VIDEO LABEL screen (p. 61)

DIRECT PLAY screen (pp. 78 – 79)

Program your remote with PRESET CODE before using DIRECT PLAY feature.

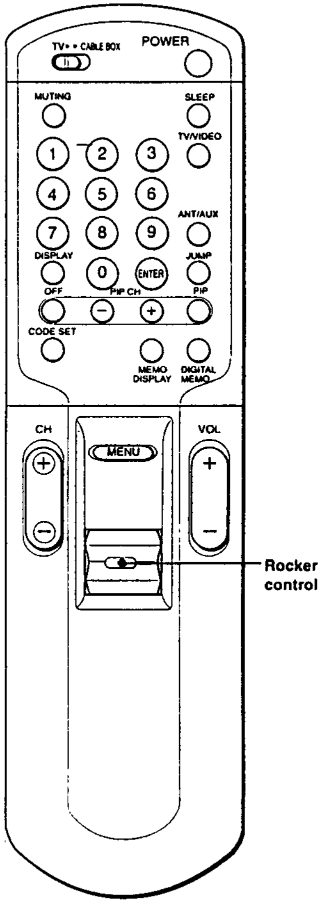
REAR SPEAKER screens (p. 58)

Adjustment screens (p. 58)

FAVORITE CHANNEL screen (pp. 70 – 71)

Set the position to input the channel.

Note
Menu items that are shaded are inactive and cannot be selected.


TV• • CABLE BOX
POWER
MUTING
SLEEP
TV/VIDEO
1
2
3
4
5
6
7
8
9
ANT/AUX
DISPLAY
JUMP
0
ENTER
OFF
PIP CH
PIP
CODE SET
MEMO DISPLAY
DIGITAL MEMO
CH
VOL
MENU
Rocker control

Navigating through the menus

To display the main menu
Press MENU.

To return to the previous menu
Press the rocker control up or down until the cursor points to " ⊃ MENU." Then click the rocker control.

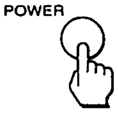
To return to the main menu
Repeat the above, until you reach the main menu.

To return to the normal screen
Press MENU on the Remote Commander.

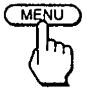
Changing the menu language

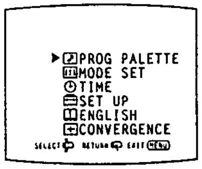
The menu language is factory-set to ENGLISH. Follow these instructions to change the menu language to Spanish or French, or back to English.

1 Press POWER to turn on the projection TV.

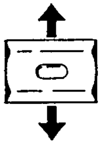


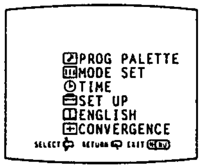
2 Press MENU.
The main menu appears.



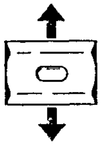

▶PROG PALETTE
MODE SET
TIME
SET UP
ENGLISH
CONVERGENCE
SELECT RETURN EXIT MENU

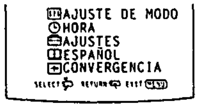
3 Press the rocker control up or down until the cursor points to "ENGLISH." Then click the rocker control.
The language display turns red.

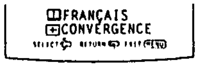


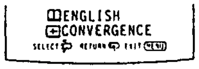

PROG PALETTE
MODE SET
TIME
SET UP
ENGLISH
CONVERGENCE
SELECT RETURN EXIT MENU

4 Press the rocker control up or down to select the language.
Each time you press the rocker control up or down, the "ESPAÑOL," "FRANÇAIS" and "ENGLISH" menus appear.



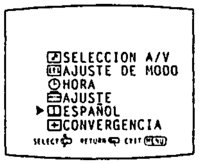

AJUSTE DE MODO
HORA
AJUSTES
ESPAÑOL
CONVERGENCIA
SELECT RETURN EXIT MENU


FRANÇAIS
CONVERGENCE
SELECT RETURN EXIT MENU


ENGLISH
CONVERGENCE
SELECT RETURN EXIT MENU

Note
Certain parts of the "ESPAÑOL" and "FRANÇAIS" menus remain in English.

5 Click the rocker control.
The language is selected.


SELECCION A/V
AJUSTE DE MODO
HORA
AJUSTE
ESPAÑOL
CONVERGENCIA
SELECT RETURN EXIT MENU

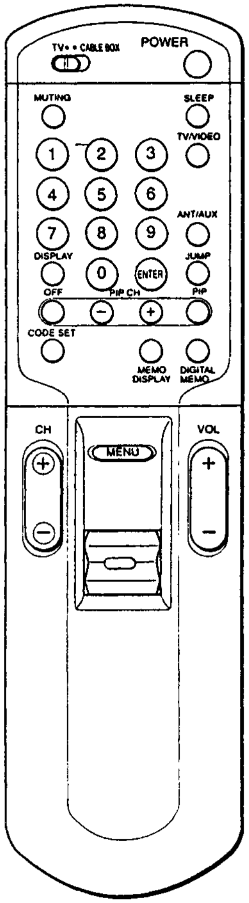
Spanish menu

To return to the normal screen.
Press MENU on the Remote Commander.

Notes concerning menus

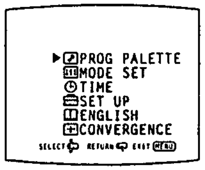
- During PIP (Picture-in-Picture) mode, the on-screen menus may overlap the window picture.
- The menus disappear automatically, if you do not press a button within 90 seconds.

1-5. ADJUSTING COLOR REGISTRATION (CONVERGENCE)

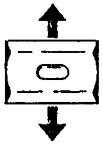

TV• •CABLE BOX
POWER
MUTING
SLEEP
TV/VIDEO
1
2
3
4
5
6
ANT/AUX
7
8
9
DISPLAY
JUMP
0
ENTER
OFF
PIP CH
PIP
CODE SET
MEMO DISPLAY
DIGITAL MEMO
CH
VOL
MENU

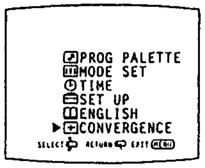
In a projection TV, the projection tube image appears on the screen in three color layers (red, green and blue). If these layers are not in proper registration, the color is poor and the picture blurs. To correct this, perform the CONVERGENCE adjustment.

1 Press MENU.
The main menu appears.

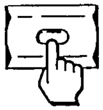

PROG PALETTE
MODE SET
TIME
SET UP
ENGLISH
CONVERGENCE
SELECT RETURN EXIT MENU

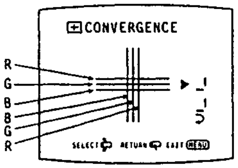
2 Press the rocker control up or down until the cursor points to "CONVERGENCE."




PROG PALETTE
MODE SET
TIME
SET UP
ENGLISH
CONVERGENCE
SELECT RETURN EXIT MENU

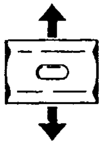
3 Click the rocker control.
The CONVERGENCE screen and the colored adjustment lines appear.

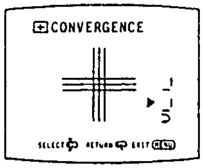



CONVERGENCE
R
G
B
B
G
R
SELECT RETURN EXIT MENU

R = Red
G = Green
B = Blue

4 Press the rocker control up or down until the cursor points to the symbol representing the line you want to adjust (see the key below).

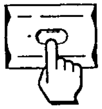


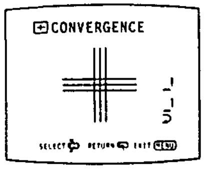

CONVERGENCE
SELECT RETURN EXIT MENU

Adjustment line symbols key

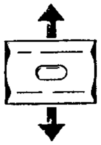
| (red vertical: left/right adjustment)
— (red horizontal: up/down adjustment)
| (blue vertical: left/right adjustment)
— (blue horizontal: up/down adjustment)

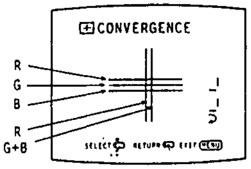
5 Click the rocker control.
The adjustment line is selected.




CONVERGENCE
SELECT RETURN EXIT MENU

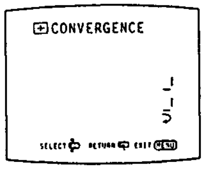
6 Press the rocker control up or down until the line converges with the center green line. Then click the rocker control.




CONVERGENCE
R
G
B
R
G+B
SELECT RETURN EXIT MENU

To move up To move right	Press the rocker control up.
To move down To move left	Press the rocker control down.

7 Repeat steps 4 – 6 to adjust the other lines, until all the lines have overlapped to form a white cross.

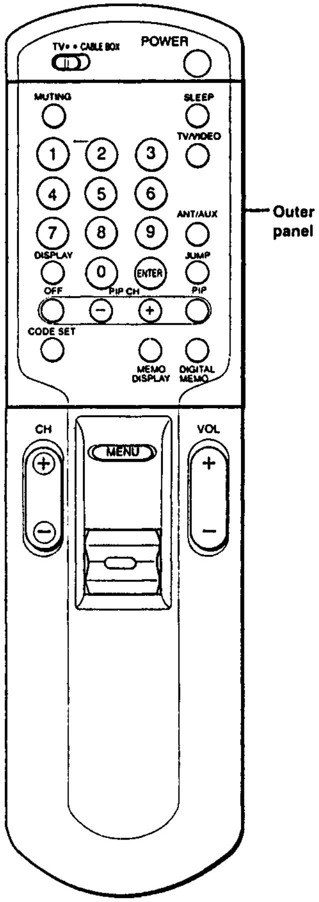

CONVERGENCE
SELECT RETURN EXIT MENU

To return to the previous menu
Press the rocker control up or down until the cursor points to " ⊃ MENU."
Then click the rocker control.

To return to the main menu
Repeat the above, until you reach the main menu.

To return to the normal screen.
Press MENU on the Remote Commander.

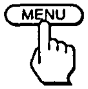
1-6. SETTING CABLE ON OR OFF

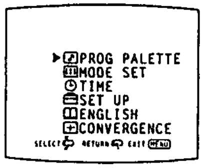

TV• • CABLE BOX
POWER
MUTING
SLEEP
TV/VIDEO
1
2
3
4
5
6
ANT/AUX
7
8
9
DISPLAY
JUMP
0
ENTER
OFF
PIP CH
PIP
CODE SET
MEMO DISPLAY
DIGITAL MEMO
CH
VOL
MENU
Outer panel

If you have cable connected to the projection TV, follow the steps below to set the cable connection on or off. Set CABLE OFF to preset or watch VHF or UHF channels, and set CABLE ON to preset or watch cable TV channels.

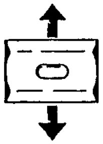
Note
If the projection TV is in video mode, the "CABLE" display is shaded and cannot be selected. Press TV/VIDEO to change to TV mode.

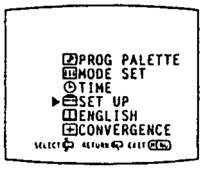
1 Press MENU.
The main menu appears.



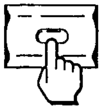

▶PROG PALETTE
MODE SET
TIME
SET UP
ENGLISH
CONVERGENCE
SELECT RETURN EXIT MENU

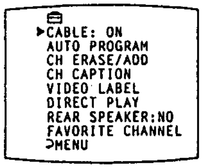
2 Press the rocker control up or down until the cursor points to "SET UP."



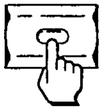

PROG PALETTE
MODE SET
TIME
▶SET UP
ENGLISH
CONVERGENCE
SELECT RETURN EXIT MENU

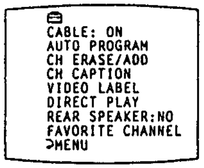
3 Click the rocker control.
The set up menu appears, and the cursor points to "CABLE."



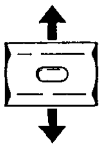

▶CABLE: ON
AUTO PROGRAM
CH ERASE/ADD
CH CAPTION
VIDEO LABEL
DIRECT PLAY
REAR SPEAKER:NO
FAVORITE CHANNEL
⊃MENU

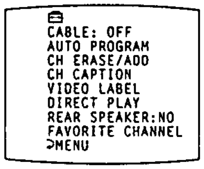
4 Click the rocker control again.
The mode display turns red.



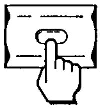

CABLE: ON
AUTO PROGRAM
CH ERASE/ADD
CH CAPTION
VIDEO LABEL
DIRECT PLAY
REAR SPEAKER:NO
FAVORITE CHANNEL
⊃MENU

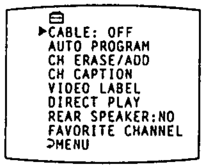
5 Press the rocker control up or down to select "ON" or "OFF."




CABLE: OFF
AUTO PROGRAM
CH ERASE/ADD
CH CAPTION
VIDEO LABEL
DIRECT PLAY
REAR SPEAKER:NO
FAVORITE CHANNEL
⊃MENU

6 Click the rocker control.
The setting is complete.




▶CABLE: OFF
AUTO PROGRAM
CH ERASE/ADD
CH CAPTION
VIDEO LABEL
DIRECT PLAY
REAR SPEAKER:NO
FAVORITE CHANNEL
⊃MENU

To return to the previous menu
Press the rocker control up or down until the cursor points to " ⊃ MENU."
Then click the rocker control.

To return to the main menu
Repeat the above, until you reach the main menu.

To return to the normal screen.
Press MENU on the Remote Commander.

Cable TV channel chart•
Cable TV systems use letters or numbers to designate channels. To tune in a channel, refer to the chart below.

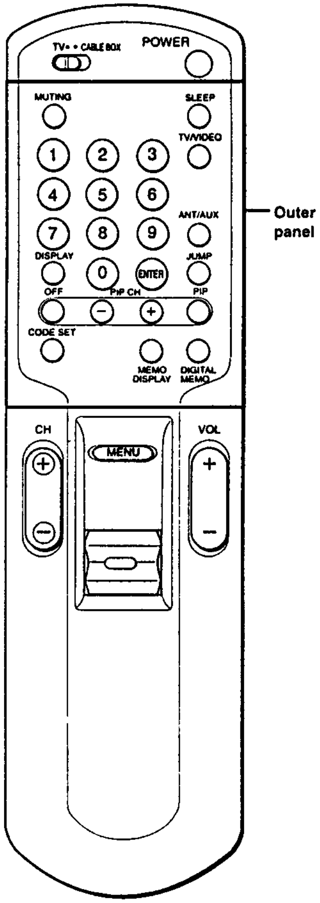
Number on this projection TV	Corresponding CATV channel
1	A-8
5	A-7
6	A-6
14	A
15	B
16	C
17	D
18	E
19	F
20	G
21	H
22	I
23	J
24	K
25	L
26	M
27	N
28	O
29	P
30	Q
31	R
32	S
33	T
34	U
35	V
36	W
37	W+1
38	W+2
39	W+3
⋮	⋮
93	W+57
94	W+58
95	A–5
96	A–4
97	A–3
98	A–2
99	A–1
100	W+59
101	W+60
102	W+61
⋮	⋮
123	W+82
124	W+83
125	W+84

Check with your local cable TV company for more complete information on the available channels.

- The designation of the cable TV channels conforms to the EIA/NCTA recommendation.

1-7. PRESETTING TV CHANNELS

By presetting TV channels to the projection TV, you can select channels by pressing CH (CHANNEL) +/–.
(You can select VHF channels 2 – 13 without presetting.)


TV•• CABLE BOX
POWER
MUTING
SLEEP
TV/VIDEO
1
2
3
4
5
6
ANT/AUX
7
8
9
DISPLAY
JUMP
0
ENTER
OFF
PIP CH
PIP
CODE SET
MEMO DISPLAY
DIGITAL MEMO
CH
VOL
MENU
Outer panel

Presetting all receivable channels automatically

Follow these instructions to preset all the receivable VHF, UHF or cable TV channels to the projection TV.

Notes

- If the projection TV is in video mode, the "AUTO PROGRAM" display is shaded and cannot be selected. Press TV/VIDEO to change to TV mode.
- Perform auto programming during the day rather than late at night, when some channels may not be broadcasting.

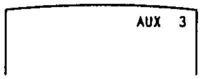
1 Set the cable connection on or off (pp. 28 – 29) to select the type of channel you want to preset, VHF/UHF or cable TV.

To preset VHF
or UHF channels

To preset
cable TV channels

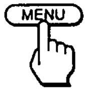
Press ANT/AUX to select the type of channel you want to preset, VHF/UHF/regular cable TV, or pay cable TV connected to the AUX (auxiliary) terminal.

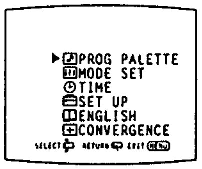
To preset VHF, UHF
or regular cable
TV channels



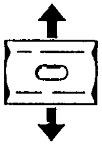
To preset pay cable
TV channels

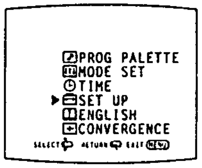
2 Press MENU.
The main menu appears.




▶PROG PALETTE
MODE SET
TIME
SET UP
ENGLISH
CONVERGENCE
SELECT RETURN EXIT MENU

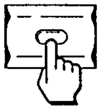
3 Press the rocker control up or down until the cursor points to "SET UP."

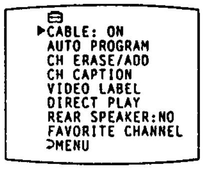



PROG PALETTE
MODE SET
TIME
▶SET UP
ENGLISH
CONVERGENCE
SELECT RETURN EXIT MENU

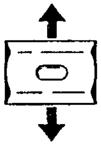
4 Click the rocker control.

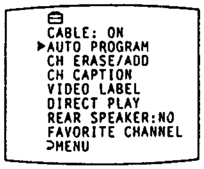
The set up menu appears.



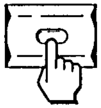

▶CABLE: ON
AUTO PROGRAM
CH ERASE/ADD
CH CAPTION
VIDEO LABEL
DIRECT PLAY
REAR SPEAKER:NO
FAVORITE CHANNEL
⊃MENU

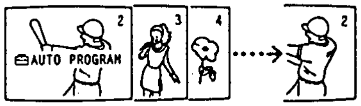
5 Press the rocker control up or down until the cursor points to "AUTO PROGRAM."




CABLE: ON
▶AUTO PROGRAM
CH ERASE/ADD
CH CAPTION
VIDEO LABEL
DIRECT PLAY
REAR SPEAKER:NO
FAVORITE CHANNEL
⊃MENU

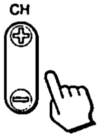
6 Click the rocker control.

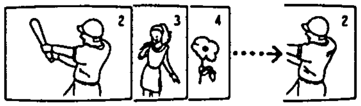



AUTO PROGRAM
2
3
4
2

"AUTO PROGRAM" appears on the screen and receivable channels (other than the channels already preset) are preset in numerical sequence. The channels previously preset will not remain in the projection TV's memory.
When no more channels are found, auto programming stops and the screen returns automatically to the set up menu.

7 Press CH +/– to check or view the preset channels.





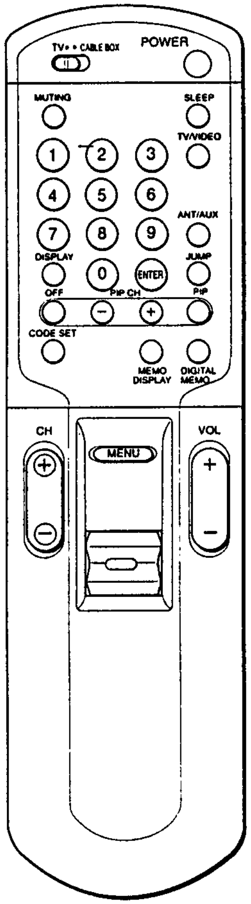
Receivable channels for this projection TV
VHF: 2 – 13
UHF: 14 – 69
Cable: 1 – 125

To select TV channels without presetting
Press the 0 – 9 buttons and ENTER.

To return to the previous menu
Press the rocker control up or down until the cursor points to "⊃ MENU."
Then click the rocker control.

To return to the main menu
Repeat the above, until you reach the main menu.

To return to the normal screen.
Press MENU on the Remote Commander.

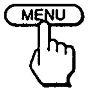

TV• • CABLE BOX
POWER
MUTING
SLEEP
1
2
3
TV/VIDEO
4
5
6
ANT/AUX
7
8
9
DISPLAY
JUMP
0
ENTER
OFF
PIP CH
PIP
CODE SET
MEMO DISPLAY
DIGITAL MEMO
CH
VOL
MENU

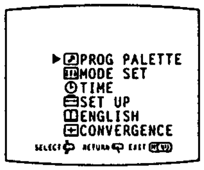
Erasing TV channels

Follow these instructions to erase unnecessary TV channels, so that when you press CH +/–, the channel(s) are skipped.

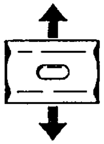
1 Press MENU.

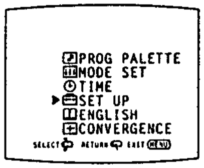
The main menu appears.




▶PROG PALETTE
MODE SET
TIME
SET UP
ENGLISH
CONVERGENCE
SELECT RETURN EXIT MENU

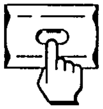
2 Press the rocker control up or down until the cursor points to "SET UP."

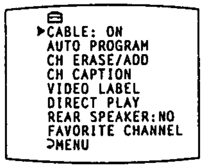



PROG PALETTE
MODE SET
TIME
▶SET UP
ENGLISH
CONVERGENCE
SELECT RETURN EXIT MENU

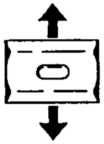
3 Click the rocker control.

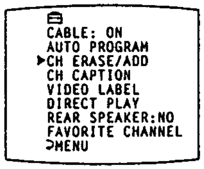
The set up menu appears.



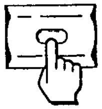

▶CABLE: ON
AUTO PROGRAM
CH ERASE/ADD
CH CAPTION
VIDEO LABEL
DIRECT PLAY
REAR SPEAKER:NO
FAVORITE CHANNEL
⊃MENU

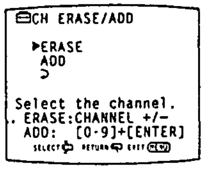
4 Press the rocker control up or down until the cursor points to "CH ERASE/ADD."




CABLE: ON
AUTO PROGRAM
▶CH ERASE/ADD
CH CAPTION
VIDEO LABEL
DIRECT PLAY
REAR SPEAKER:NO
FAVORITE CHANNEL
⊃MENU

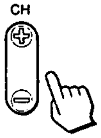
5 Click the rocker control.
The CH ERASE/ADD screen appears, and the cursor points to "ERASE."

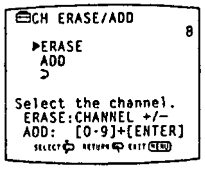




```
CH ERASE/ADD
 ▶ERASE
  ADD
  ⊃
Select the channel.
 ERASE:CHANNEL +/–
 ADD:  [0-9]+[ENTER]
 SELECT  RETURN  EXIT MENU
```

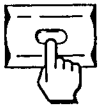
6 Press CH +/– to select the channel you want to erase.
The channel display appears.

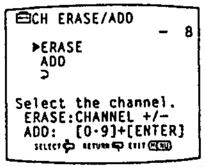




```
CH ERASE/ADD
                      8
 ▶ERASE
  ADD
  ⊃
Select the channel.
 ERASE:CHANNEL +/–
 ADD:  [0-9]+[ENTER]
 SELECT  RETURN  EXIT MENU
```

7 Click the rocker control.
A "–" sign appears in front of the channel number display, indicating that the channel is erased; then the CH ERASE/ADD screen automatically reappears.





```
CH ERASE/ADD
                    - 8
 ▶ERASE
  ADD
  ⊃
Select the channel.
 ERASE:CHANNEL +/–
 ADD:  [0-9]+[ENTER]
 SELECT  RETURN  EXIT MENU
```

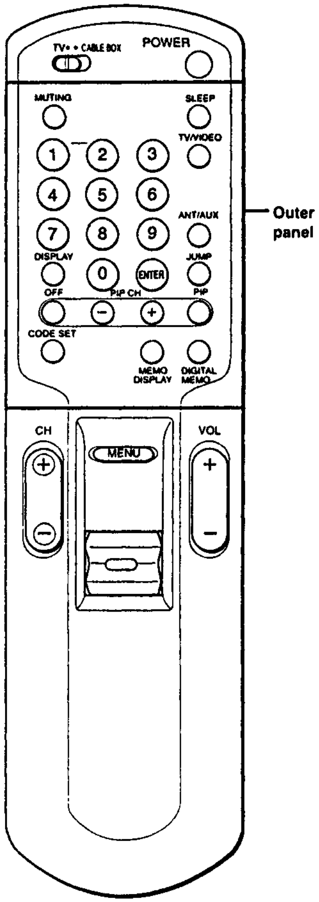
To erase another channel
Repeat steps 6 – 7.

To return to the previous menu
Press the rocker control up or down until the cursor points to " ⊃ MENU."
Then click the rocker control.

To return to the main menu
Repeat the above, until you reach the main menu.

To return to the normal screen
Press MENU on the Remote Commander.

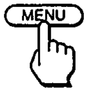
Note
If you erase a VHF or UHF channel, the same number cable TV channel is also erased (and vice versa).

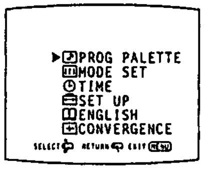


Adding TV channels

Follow these instructions to add TV channels one by one to the selection memory, or to replace a TV channel you previously erased (pp. 32 – 33).

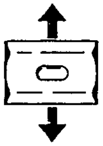
1 Press MENU.
The main menu appears.

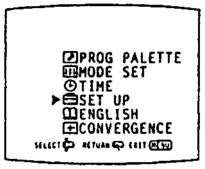




```
▶PROG PALETTE
 MODE SET
 TIME
 SET UP
 ENGLISH
 CONVERGENCE
SELECT  RETURN  EXIT MENU
```

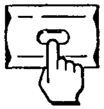
2 Press the rocker control up or down until the cursor points to "SET UP."

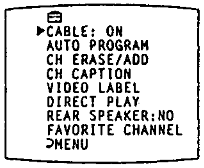




```
 PROG PALETTE
 MODE SET
 TIME
▶SET UP
 ENGLISH
 CONVERGENCE
SELECT  RETURN  EXIT MENU
```

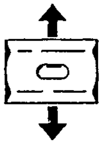
3 Click the rocker control.
The set up menu appears.

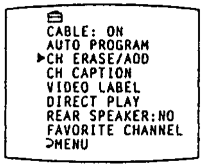




```
▶CABLE: ON
 AUTO PROGRAM
 CH ERASE/ADD
 CH CAPTION
 VIDEO LABEL
 DIRECT PLAY
 REAR SPEAKER:NO
 FAVORITE CHANNEL
 ⊃MENU
```

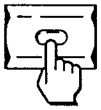
4 Press the rocker control up or down until the cursor points to "CH ERASE/ADD."

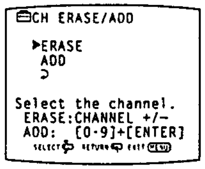




```
 CABLE: ON
 AUTO PROGRAM
▶CH ERASE/ADD
 CH CAPTION
 VIDEO LABEL
 DIRECT PLAY
 REAR SPEAKER:NO
 FAVORITE CHANNEL
 ⊃MENU
```

5 Click the rocker control.
The CH ERASE/ADD screen appears.

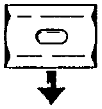


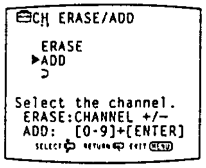


```
CH ERASE/ADD

 ▶ERASE
  ADD
  ⊃

Select the channel.
 ERASE:CHANNEL +/-
 ADD:  [0-9]+[ENTER]
```

SELECT RETURN EXIT MENU

6 Press the rocker control down until the cursor points to "ADD."

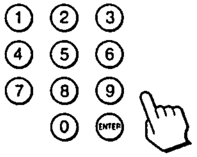




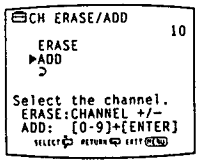
```
CH ERASE/ADD

  ERASE
 ▶ADD
  ⊃

Select the channel.
 ERASE:CHANNEL +/-
 ADD:  [0-9]+[ENTER]
```

SELECT RETURN EXIT MENU

7 Press 0 – 9 and ENTER on the Remote Commander to select the channel you want to add.
The channel display appears.



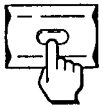
1
2
3
4
5
6
7
8
9
0
ENTER

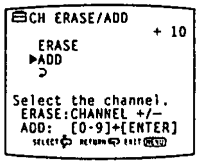


```
CH ERASE/ADD
                  10
  ERASE
 ▶ADD
  ⊃

Select the channel.
 ERASE:CHANNEL +/-
 ADD:  [0-9]+[ENTER]
```

SELECT RETURN EXIT MENU

8 Click the rocker control.
A "+" sign appears in front of the channel number display, indicating that the channel is added; then the CH ERASE/ADD screen automatically reappears.





```
CH ERASE/ADD
                + 10
  ERASE
 ▶ADD
  ⊃

Select the channel.
 ERASE:CHANNEL +/-
 ADD:  [0-9]+[ENTER]
```

SELECT RETURN EXIT MENU

To add another channel
Repeat steps 7 – 8.

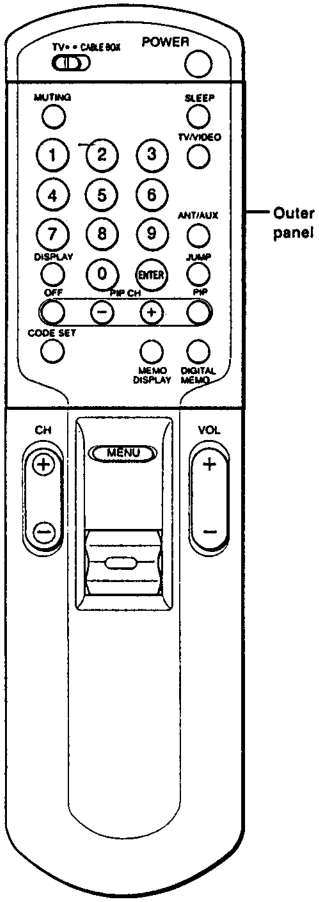
To return to the previous menu
Press the rocker control up or down until the cursor points to " ⊃ MENU."
Then click the rocker control.

To return to the main menu
Repeat the above, until you reach the main menu.

To return to the normal screen
Press MENU on the Remote Commander.

Note
If you add a VHF or UHF channel, the same number cable TV channel is also added (and vice versa).

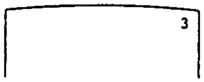
1-8. WATCHING TV PROGRAMS



TV• • CABLE BOX
POWER
MUTING
SLEEP
TV/VIDEO
1
2
3
4
5
6
ANT/AUX
7
8
9
DISPLAY
JUMP
0
ENTER
OFF
PIP CH
PIP
CODE SET
MEMO DISPLAY
DIGITAL MEMO
CH
MENU
VOL
Outer panel

Make sure that the TV/CABLE BOX selector on the Remote Commander is set to TV, in order to control the projection TV with the Remote Commander.

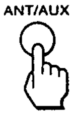
1 Set the cable connection on or off (pp. 28 – 29) to select the type of channel you want to watch, VHF/UHF or cable TV.

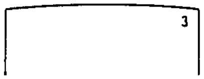


To watch VHF or UHF channels

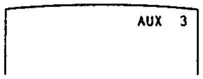
To watch cable TV channels

Press ANT/AUX to select the type of channel you want to watch, VHF/UHF/regular cable TV, or pay cable TV connected to the AUX (auxiliary) terminal.





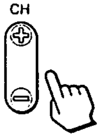
To watch VHF, UHF or regular cable TV channels



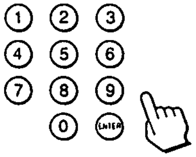
To watch pay cable TV channels

2 Select a channel in one of the following two ways:

To scan the preset channels in numerical sequence, press CH +/–.

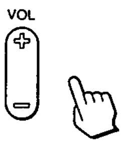


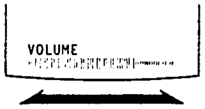
To select a channel directly, press 0 – 9 and then ENTER.
For example, to select channel 10, press 1, 0 and ENTER.



1
2
3
4
5
6
7
8
9
0
ENTER

3 Press VOL +/– to adjust the volume.





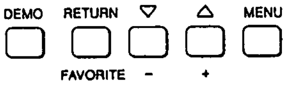
Press + to increase the volume.
Press – to decrease the volume.

If VIDEO 1, VIDEO 2 or VIDEO 3 appears on the screen
Press TV/VIDEO until a TV channel number appears.

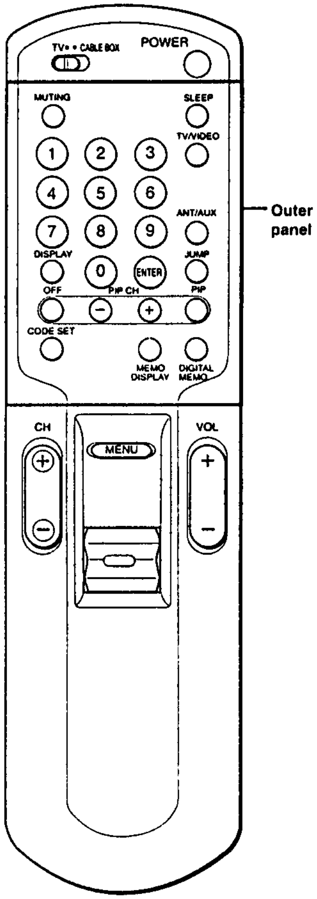
To select channels more easily
Set FAVORITE CHANNEL (pp. 70 – 71).

To turn off the projection TV
Press POWER.

1-9. USING CONVENIENT FEATURES


DEMO
RETURN
▽
△
MENU
FAVORITE
–
+

Front inner panel


TV• •CABLE BOX
POWER
MUTING
SLEEP
TV/VIDEO
1
2
3
4
5
6
ANT/AUX
7
8
9
DISPLAY
JUMP
0
ENTER
OFF
PIP CH
PIP
CODE SET
MEMO DISPLAY
DIGITAL MEMO
CH
VOL
MENU
Outer panel

Muting the sound — MUTING

Press MUTING.
"MUTING" appears on the screen.

To restore the sound
Press MUTING again, or press VOL +.

Keeping the displays on-screen — DISPLAY

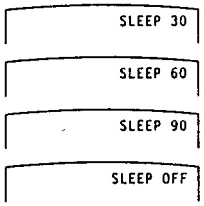
Press DISPLAY.
All the existing displays appear: channel number, channel caption (if set), MTS mode ("SAP" only), window picture input mode, and the current time ("AM" or "PM" disappears after about three seconds).

To turn off the displays
Press DISPLAY again.

Setting the sleep timer — SLEEP

The sleep timer turns off the projection TV automatically after the amount of time you select.

Press SLEEP.
Each time you press SLEEP, the time increments "30," "60," "90" and "OFF" mode appear in sequence.


SLEEP 30
SLEEP 60
SLEEP 90
SLEEP OFF

A red "SLEEP" display appears about one minute before the projection TV goes off.

To cancel the setting.
Press SLEEP until OFF mode appears.
A green "SLEEP OFF" display appears for about three seconds.
OR
Turn the projection TV off.
The sleep timer setting is cancelled.

Switching quickly between two channels — JUMP

Use this function to keep track of two programs alternately.

To recall the channel you were watching previously
Press JUMP.

To switch back to the first channel
Press JUMP again.

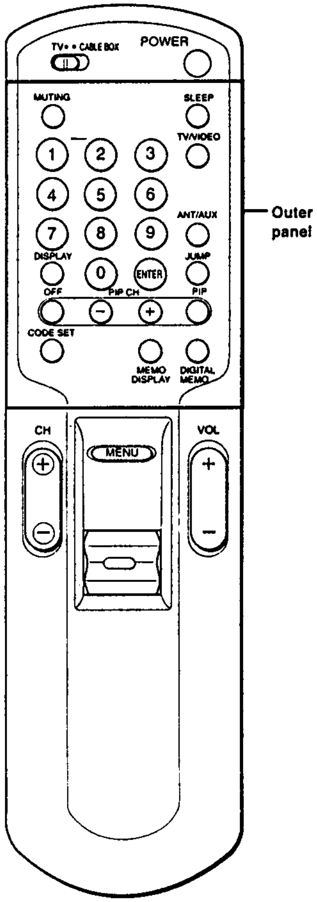
Note
The JUMP function also changes the mode to ANT (antenna) or AUX (auxiliary), depending on the mode of the channel you were watching previously.

Previewing the features — DEMO

Press DEMO (front inner panel).
Functions and menus are displayed one by one.

To restart DEMO from the beginning
Press DEMO again.

To stop DEMO
Press any button.


TV• • CABLE BOX
POWER
MUTING
SLEEP
TV/VIDEO
1
2
3
4
5
6
7
8
9
ANT/AUX
DISPLAY
0
ENTER
JUMP
OFF
PIP CH
PIP
CODE SET
MEMO DISPLAY
DIGITAL MEMO
Outer panel
CH
MENU
VOL

Storing an image in memory – DIGITAL MEMO

Use this feature to store and recall a recipe from a cooking program, a displayed address or phone number and so on.

1 Press DIGITAL MEMO.
The displayed image is stored in memory, and the image remains still on the screen.

DIGITAL MEMO

2 Press MEMO DISPLAY.
The projection TV returns to normal viewing mode.

MEMO DISPLAY

To recall the stored image

Press MEMO DISPLAY.

MEMO DISPLAY

The stored picture is retained in memory until:
- you turn off the projection TV.
- you press OFF (in the PIP section) twice.
- you store a different image.

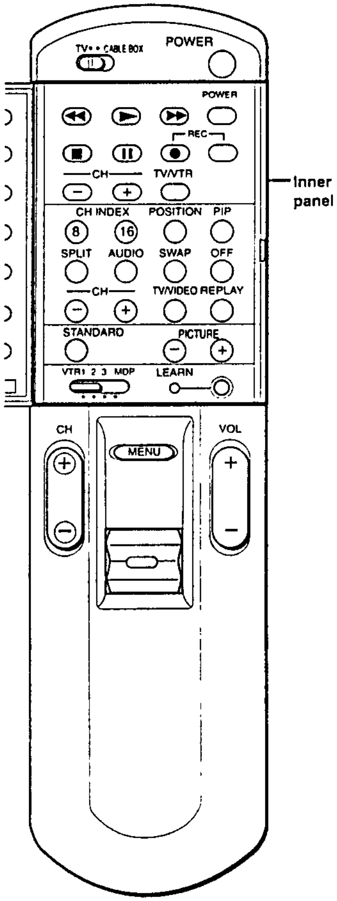
To return to the normal screen
Press MEMO DISPLAY again.

Note
You cannot display a window picture (pp. 43 – 47) while viewing a DIGITAL MEMO screen.

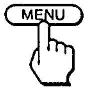
1-10. SELECTING A PICTURE SOUND MODE

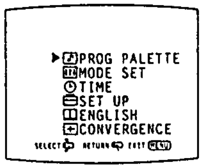
This projection TV features six modes (STANDARD, MOVIE, SPORTS, NEWS, MUSIC, GAME) that offer different picture and sound qualities. Choose the one that best suits the type of program that you want to watch.

Example: Select MOVIE mode for picture and sound that gives you the sense of being in a movie theater.

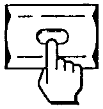

TV• • CABLE BOX
POWER
POWER
REC
CH
TV/VTR
CH INDEX
POSITION
PIP
8
16
SPLIT
AUDIO
SWAP
OFF
CH
TV/VIDEO
REPLAY
STANDARD
PICTURE
VTR1 2 3 MDP
LEARN
Inner panel
CH
MENU
VOL

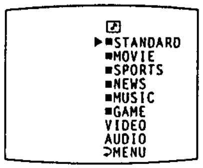
1 Press MENU.
The main menu appears, and the cursor points to "PROG PALETTE."



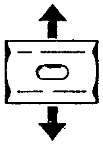

▶PROG PALETTE
MODE SET
TIME
SET UP
ENGLISH
CONVERGENCE
SELECT RETURN EXIT MENU

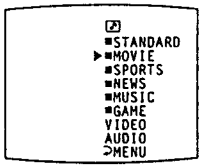
2 Click the rocker control.
The program palette menu appears.



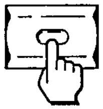

▶■STANDARD
■MOVIE
■SPORTS
■NEWS
■MUSIC
■GAME
VIDEO
AUDIO
⊃MENU

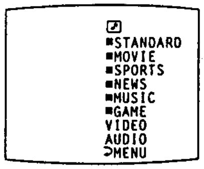
3 Press the rocker control up or down until the cursor points to "MOVIE."




■STANDARD
▶■MOVIE
■SPORTS
■NEWS
■MUSIC
■GAME
VIDEO
AUDIO
⊃MENU

4 Click the rocker control.
The "MOVIE" display turns green, indicating that MOVIE mode is selected.




■STANDARD
■MOVIE
■SPORTS
■NEWS
■MUSIC
■GAME
VIDEO
AUDIO
⊃MENU

To select a different mode
Repeat steps 3 – 4.

Selecting standard mode (without using the menus)

Follow these instructions to select standard mode without using the on-screen menus.

Press STANDARD.

When you select STANDARD mode
You receive standard picture and sound quality. Any video or audio adjustments you made ("Adjusting the Picture" pp. 48 – 52; "Adjusting the Sound" pp. 53 – 58) are cancelled and the original factory settings are restored.

When you select MOVIE mode
You receive a finely detailed picture, and a theatrical audio effect.
To further adjust picture and sound qualities, follow the instructions on pp. 48 – 52 and pp. 53 – 58, or select different sound modes from the DSP (Digital Sound Processor) menu (pp. 53 – 54).

When you select SPORTS mode
You receive a vivid, bright picture, and sound with a sports stadium effect.
To further adjust picture and sound qualities, follow the instructions on pp. 48 – 52 and pp. 53 – 58, or select different sound modes from the DSP (Digital Sound Processor) menu (pp. 53 – 54).

When you select NEWS mode
Picture noise is reduced, and you receive clear voice reproduction.
To further adjust picture and sound qualities, follow the instructions on pp. 48 – 52 and pp. 53 – 58, or select different sound modes from the DSP (Digital Sound Processor) menu (pp. 53 – 54).

When you select MUSIC mode
You receive a warmer picture, and live concert effect sound.
To further adjust picture and sound qualities, follow the instructions on pp. 48 – 52 and pp. 53 – 58, or select different sound modes from the DSP (Digital Sound Processor) menu (pp. 53 – 54).

When you select GAME mode
The picture is easier on your eyes, and sound has a surround effect.
To further adjust picture and sound qualities, follow the instructions on pp. 48 – 52 and pp. 53 – 58, or select different sound modes from the DSP (Digital Sound Processor) menu (pp. 53 – 54).

Caution
Leaving a fixed pattern on the screen for long periods of time, when operating a video game or personal computer, may damage the picture tube. To avoid this, keep the picture contrast and the brightness levels low (PICTURE and BRIGHT adjustment, pp. 48 – 49).

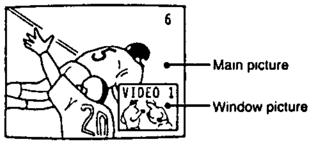
To return to the previous menu
Press the rocker control up or down until the cursor points to " ⊃ MENU."
Then click the rocker control.

To return to the main menu
Repeat the above, until you reach the main menu.

To return to the normal screen.
Press MENU on the Remote Commander.

1-11. WATCHING TWO OR MORE PICTURE AT ONCE (PIP)

You can watch both the main picture and one or more window pictures simultaneously, using the Picture-in-Picture (PIP) function.


6
Main picture
VIDEO 1
Window picture

Picture-in-Picture special features

When watching the main picture and a window picture, you can:

- Choose the sound from the main or window picture (AUDIO).
- Change the position of the window picture (POSITION).
- Swap the main and window pictures (SWAP).
- Replay the main picture as a window picture (REPLAY).
- Split the screen, with the main picture on one side and the window picture on the other side (SPLIT).
- Display 8 or 16 TV channels simultaneously (CH INDEX 8/16).

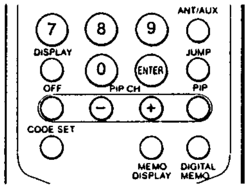
Notes

- You can also use the CH +/– buttons on the Remote Commander's inner panel.
- The video label and channel caption will not appear with the window picture even if you have set them.
- If you select a blocked channel in the window picture, the display "BLOCKED" appears with the window picture. (See "Setting CHANNEL BLOCK," pp. 68 – 69.)
- If you display a DIGITAL MEMO screen (p. 40), the window picture disappears.

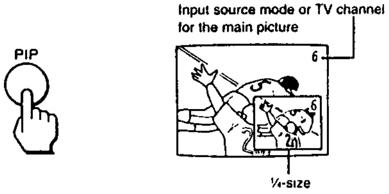
Displaying a window picture

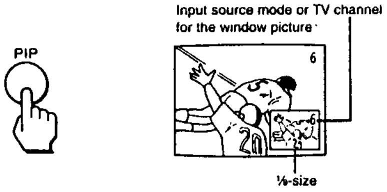
To turn PIP mode on or off, or to change TV channels, you can use the PIP buttons on the Remote Commander's outer panel. For other PIP functions, use the inner panel controls, which also include the PIP, OFF and CH +/– buttons.

Remote Commander (Outer panel)


7
8
9
ANT/AUX
DISPLAY
JUMP
0
ENTER
OFF
PIP CH
PIP
CODE SET
MEMO DISPLAY
DIGITAL MEMO

Press PIP to display a window picture


Input source mode or TV channel for the main picture
PIP
6
¼-size


Input source mode or TV channel for the window picture
PIP
6
⅑-size

A window picture appears in the last mode you watched. Each time you press PIP, a 1/4 or 1/9 size window picture appears alternately.

To turn PIP function off

Press OFF.

The window picture disappears.

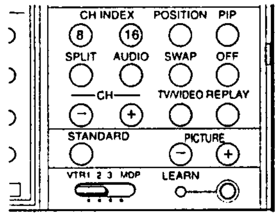
To change TV channels in the window picture

Press TV/VIDEO to select TV mode; then press CH +/– in the PIP control area.

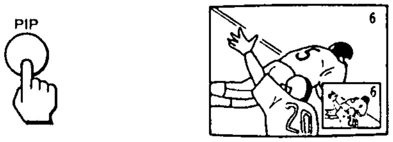
Changing the window picture input mode

Follow these instructions to select the input mode (TV/ VIDEO 1, VIDEO 2, VIDEO 3) for the window picture.

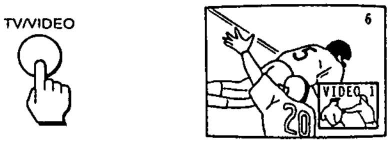
Remote Commander (Inner panel)


CH INDEX
POSITION
PIP
8
16
SPLIT
AUDIO
SWAP
OFF
CH
TV/VIDEO
REPLAY
STANDARD
PICTURE
VTR1 2 3 MDP
LEARN

1 Press PIP to display a window picture.



2 Press TV/VIDEO to select the input mode.
Each time you press TV/VIDEO, "TV," "VIDEO 1," "VIDEO 2" and "VIDEO 3" appear in sequence.


TV/VIDEO
6
VIDEO 1

To receive the window picture sound

Press AUDIO.

The ♪ display appears for a few seconds, indicating that the window picture sound is being received.

To restore the main picture sound

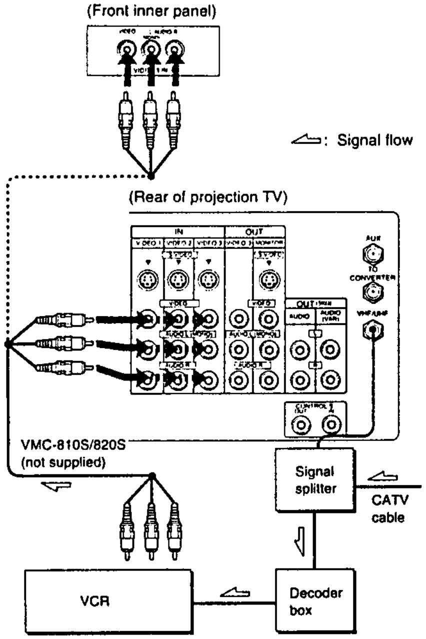
Press AUDIO again.

Note

The window picture sound is also output from the AUDIO (VAR) OUT jacks. The AUDIO OUT and MONITOR OUT jacks output the main picture sound only.

Displaying CATV input as a window picture

To use Picture-in-Picture with pay cable TV input, make the connections to your cable converter box as shown below.


(Front inner panel)
VIDEO
AUDIO
VIDEO 1 IN
⊲: Signal flow
(Rear of projection TV)
IN
OUT
VIDEO 1
VIDEO 2
VIDEO 3
MONITOR
S VIDEO
AUX
TO CONVERTER
VHF/UHF
OUT
AUDIO
AUDIO (VAR)
CONTROL S
OUT
IN
VMC-810S/820S (not supplied)
Signal splitter
CATV cable
VCR
Decoder box

After making the above connections, turn the cable connection on by following the steps on pp. 28 – 29; then continue with the steps below.

1–2 Follow steps 1 – 2 in "Changing the window picture input mode" on this page to select the video input mode for your connected VCR.

3 Put your VCR on an inactive channel (channel 3 or 4).

4 Change pay cable TV channels with the decoder box.

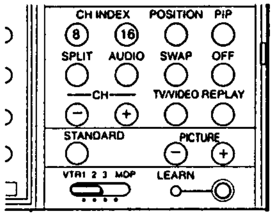
To control your cable converter box with the supplied Remote Commander

See p. 76.

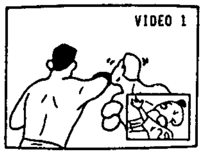
Changing the position of the window picture

Follow these instructions to change the position of the window picture on the screen.

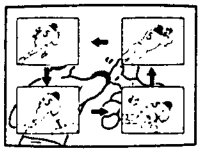
Remote Commander (Inner panel)


CH INDEX
POSITION
PIP
8
16
SPLIT
AUDIO
SWAP
OFF
CH
TV/VIDEO
REPLAY
STANDARD
PICTURE
VTR1 2 3 MDP
LEARN

1 Press PIP to display a window picture.



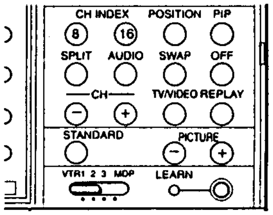
2 Press POSITION.
Each time you press POSITION, the window picture moves as illustrated.



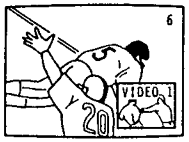
Swapping the main and window pictures

Follow these instructions to swap the input signals of the main and window pictures.

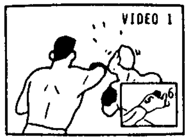
Remote Commander (Inner panel)


CH INDEX
POSITION
PIP
8
16
SPLIT
AUDIO
SWAP
OFF
CH
TV/VIDEO
REPLAY
STANDARD
PICTURE
VTR1 2 3 MDP
LEARN

1 Press PIP to display a window picture.



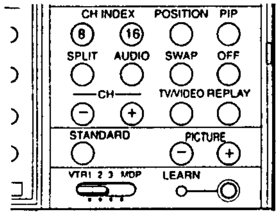
2 Press SWAP.
Each time you press SWAP, the images from the main and window pictures switch places.



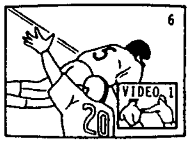
Displaying 8 TV channels at once – CH INDEX 8

Follow these instructions to display the main picture and 7 window pictures at once.

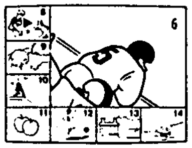
Remote Commander (Inner panel)


CH INDEX
POSITION
PIP
8
16
SPLIT
AUDIO
SWAP
OFF
CH
TV/VIDEO
REPLAY
STANDARD
PICTURE
VTR1 2 3 MDP
LEARN

1 Press PIP to display a window picture.



2 Press CH INDEX 8 to display seven window pictures.
Seven TV channels appear in numerical sequence, as window pictures.



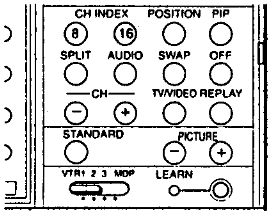
Each time you press CH INDEX 8, the next seven sequential channels appear (the main picture does not change).

To return to the normal screen
Press OFF.

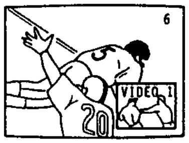
Displaying 16 TV channels at once – CH INDEX 16

Follow these instructions to display 16 window pictures at once.

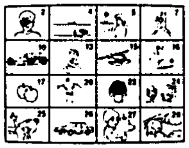
Remote Commander (Inner panel)


CH INDEX
POSITION
PIP
8
16
SPLIT
AUDIO
SWAP
OFF
CH
TV/VIDEO
REPLAY
STANDARD
PICTURE
VTR1 2 3 MDP
LEARN

1 Press PIP to display a window picture.



2 Press CH INDEX 16 to display 16 window pictures.
16 TV channels appear in numerical sequence, as window pictures.



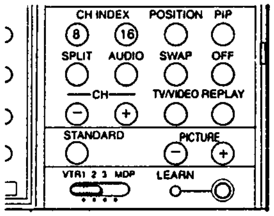
Each time you press CH INDEX 16, the next 16 sequential channels appear (the main picture does not change).

To return to the normal screen
Press OFF.

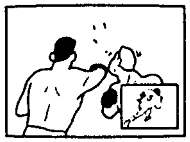
Replaying the main picture as a window picture

Follow these instructions to replay the image that appeared in the main picture two seconds before, as a window picture.

Remote Commander (Inner panel)


CH INDEX
POSITION
PIP
8
16
SPLIT
AUDIO
SWAP
OFF
—CH—
TV/VIDEO
REPLAY
STANDARD
PICTURE
VTR1 2 3 MDP
LEARN

Press REPLAY.

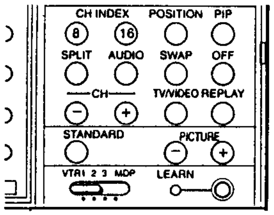


To return to the normal screen
Press OFF.

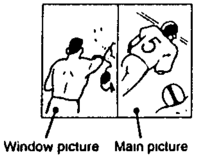
Splitting the screen

Follow these instructions to split the screen, with the window picture on the left, and the main picture on the right.

Remote Commander (Inner panel)


CH INDEX
POSITION
PIP
8
16
SPLIT
AUDIO
SWAP
OFF
—CH—
TV/VIDEO
REPLAY
STANDARD
PICTURE
VTR1 2 3 MDP
LEARN

Press SPLIT.


Window picture
Main picture

To return to the normal screen
Press OFF.

Note
When using SPLIT, vertical lines may appear elongated.

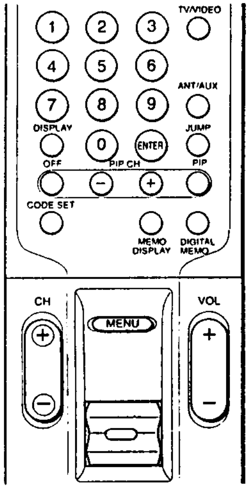
1-12. ADJUSTING THE PICTURE

You can adjust the picture (and sound, pp. 55 – 56) for each input mode (TV, VIDEO 1, VIDEO 2, VIDEO 3) by pressing TV/VIDEO on the projection TV or on the Remote Commander to select the input mode, before making the adjustments. These adjustments are retained in memory even when you turn off the projection TV, but are cancelled after you change the adjustments, or select a picture and sound mode (pp. 41 – 42).

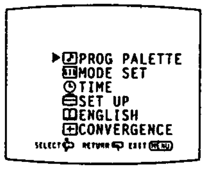
Adjusting picture quality

Follow these instructions to adjust PICTURE, HUE, COLOR, BRIGHT (brightness) and SHARP (sharpness).

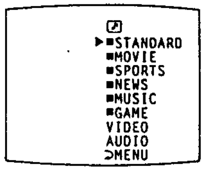
Remote Commander (Outer panel)


TV/VIDEO
1
2
3
4
5
6
ANT/AUX
7
8
9
DISPLAY
JUMP
0
ENTER
OFF
PIP CH
PIP
CODE SET
MEMO DISPLAY
DIGITAL MEMO
CH
MENU
VOL

1 Press MENU.
The main menu appears, and the cursor points to "PROG PALETTE."

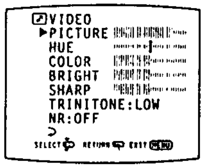

▶PROG PALETTE
MODE SET
TIME
SET UP
ENGLISH
CONVERGENCE
SELECT RETURN EXIT MENU

2 Click the rocker control.
The program palette menu appears.


▶■STANDARD
■MOVIE
■SPORTS
■NEWS
■MUSIC
■GAME
VIDEO
AUDIO
MENU

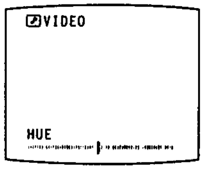
3 Press the rocker control up or down until the cursor points to "VIDEO."

4 Click the rocker control.
The VIDEO screen appears.


VIDEO
▶PICTURE
HUE
COLOR
BRIGHT
SHARP
TRINITONE:LOW
NR:OFF
SELECT RETURN EXIT MENU

5 Press the rocker control up or down until the cursor points to the item you want to adjust.

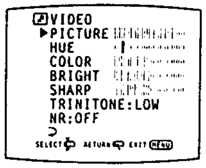
6 Click the rocker control.
The adjustment screen appears.



7 Press the rocker control up or down to make the adjustment.

Picture quality	Press the rocker control down	Press the rocker control up
PICTURE	For decreased picture contrast with soft color	For increased picture with vivid color
HUE	Skin tones become purplish	Skin tones become greenish
COLOR	For less color intensity	For more color intensity
BRIGHT	For less brightness	For more brightness
SHARP	For less sharpness	For more sharpness

8 Click the rocker control.
The adjustment is complete, and the VIDEO screen automatically reappears.

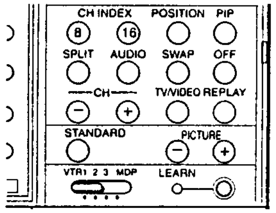

VIDEO
▶PICTURE
HUE
COLOR
BRIGHT
SHARP
TRINITONE:LOW
NR:OFF
⊃
SELECT RETURN EXIT MENU

To adjust other items
Repeat steps 5 – 8.

To restore the factory settings for all the items
Select "STANDARD" on the program palette menu, and click the rocker control;
or, press STANDARD on the Remote Commander.
All the items, including TRINITONE (p. 50) and NR (p. 51) return to their original factory settings.

To adjust picture contrast
You can also adjust picture contrast with the PICTURE +/– buttons on the Remote Commander.

(Inner panel)


CH INDEX
8
16
POSITION
PIP
SPLIT
AUDIO
SWAP
OFF
CH
–
+
TV/VIDEO
REPLAY
STANDARD
PICTURE
–
+
VTR1 2 3 MDP
LEARN

Press + to increase picture contrast with vivid color.
Press – to decrease picture contrast with soft color.
The picture adjustment screen appears.

To return to the previous menu
Press the rocker control up or down until the cursor points to " ⊃ MENU."
Then click the rocker control.

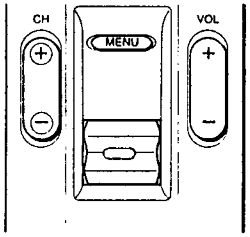
To return to the main menu
Repeat the above, until you reach the main menu.

To return to the normal screen
Press MENU on the Remote Commander.

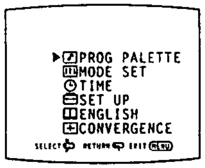
Setting the TRINITONE mode

Color picture tubes are usually manufactured with a fixed color temperature (tint) that determines the "warmth" (red tint) or "coolness" (blue tint) of the picture. Use the Sony Trinitone feature to adjust the picture color to your preference.

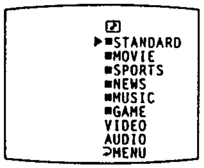
Remote Commander



1 Press MENU.
The main menu appears, and the cursor points to "PROG PALETTE."

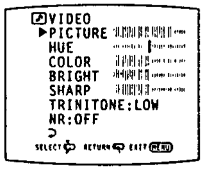

▶PROG PALETTE
MODE SET
TIME
SET UP
ENGLISH
CONVERGENCE
SELECT RETURN EXIT MENU

2 Click the rocker control.
The program palette menu appears.


▶■STANDARD
■MOVIE
■SPORTS
■NEWS
■MUSIC
■GAME
VIDEO
AUDIO
⊃MENU

3 Press the rocker control up or down until the cursor points to "VIDEO."

4 Click the rocker control.
The VIDEO screen appears.


VIDEO
▶PICTURE
HUE
COLOR
BRIGHT
SHARP
TRINITONE:LOW
NR:OFF
⊃
SELECT RETURN EXIT MENU

5 Press the rocker control up or down until the cursor points to "TRINITONE."

6 Click the rocker control.
The mode display turns red.

7 Press the rocker control up or down to select "HIGH" or "LOW."

Select "HIGH" to make the picture cool (bluish).
Select "LOW" to make the picture warm (reddish).

8 Click the rocker control.
The setting is complete.

To return to the previous menu
Press the rocker control up or down until the cursor points to " ⊃ MENU."
Then click the rocker control.

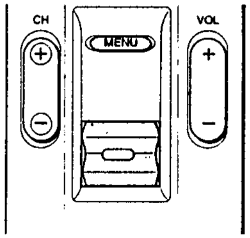
To return to the main menu
Repeat the above, until you reach the main menu.

To return to the normal screen
Press MENU on the Remote Commander.

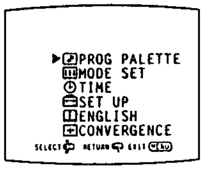
Setting NR (picture noise reduction) ON or OFF

Follow these instructions to reduce picture noise.

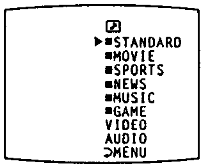
Remote Commander



1 Press MENU.
The main menu appears, and the cursor points to "PROG PALETTE."

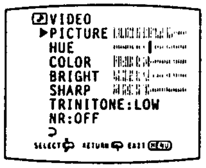

▶PROG PALETTE
MODE SET
TIME
SET UP
ENGLISH
CONVERGENCE
SELECT RETURN EXIT MENU

2 Click the rocker control.
The program palette menu appears.

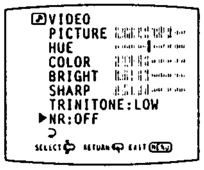

▶■STANDARD
■MOVIE
■SPORTS
■NEWS
■MUSIC
■GAME
VIDEO
AUDIO
⊃MENU

3 Press the rocker control up or down until the cursor points to "VIDEO."

4 Click the rocker control.
The VIDEO screen appears.


VIDEO
▶PICTURE
HUE
COLOR
BRIGHT
SHARP
TRINITONE:LOW
NR:OFF
⊃
SELECT RETURN EXIT MENU

5 Press the rocker control up or down until the cursor points to "NR."


VIDEO
PICTURE
HUE
COLOR
BRIGHT
SHARP
TRINITONE:LOW
▶NR:OFF
⊃
SELECT RETURN EXIT MENU

6 Click the rocker control.
The mode display turns red.

7 Press the rocker control up or down to select "ON" or "OFF."

Select "ON" to reduce picture noise.
Select "OFF" to restore the normal picture.

8 Click the rocker control.
The setting is complete.

To return to the previous menu
Press the rocker control up or down until the cursor points to " ⊃ MENU."
Then click the rocker control.

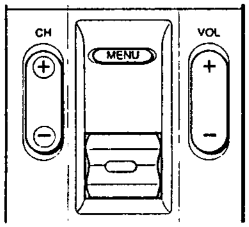
To return to the main menu
Repeat the above, until you reach the main menu.

To return to the normal screen
Press MENU on the Remote Commander.

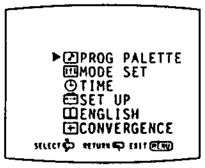
Setting S-VIDEO ON or OFF

Follow these instructions to set S-VIDEO on or off, depending on the kind of video equipment you have connected to the projection TV. For instructions on connecting video equipment, see pp. 15 – 18.

Remote Commander (Outer panel)

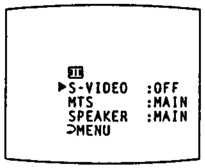


1 Press MENU.
The main menu appears.


▶PROG PALETTE
MODE SET
TIME
SET UP
ENGLISH
CONVERGENCE
SELECT RETURN EXIT MENU

2 Press the rocker control up or down until the cursor points to "MODE SET."

3 Click the rocker control.
The mode set menu appears, with the cursor pointing to "S-VIDEO."


▶S-VIDEO :OFF
MTS :MAIN
SPEAKER :MAIN
⊃MENU

4 Click the rocker control.
The mode display turns red.

5 Press the rocker control up or down to select "ON" or "OFF."

6 Click the rocker control.
The setting is complete.

To return to the previous menu
Press the rocker control up or down until the cursor points to " ⊃ MENU."
Then click the rocker control.

To return to the main menu
Repeat the above, until you reach the main menu.

To return to the normal screen
Press MENU on the Remote Commander.

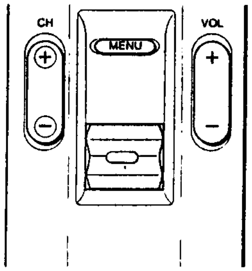
1-13. ADJUSTING THE SOUND

Selecting a sound mode

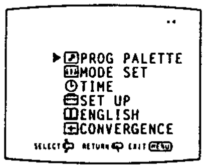
Use the DSP (Digital Sound Processor) menu to select the sound mode that best suits the type of sound you are listening to.

Example: **Select JAZZ CLUB mode to enhance the effect when viewing a musical performance.**

Remote Commander

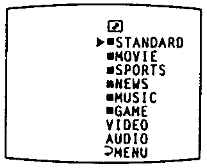


1 Press MENU.
The main menu appears.


▶PROG PALETTE
MODE SET
TIME
SET UP
ENGLISH
CONVERGENCE
SELECT RETURN EXIT MENU

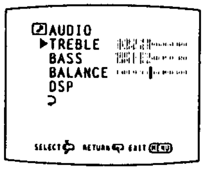
2 Press the rocker control up or down until the cursor points to "PROG PALETTE."

3 Click the rocker control.
The program palette menu appears.


▶■STANDARD
■MOVIE
■SPORTS
■NEWS
■MUSIC
■GAME
VIDEO
AUDIO
MENU

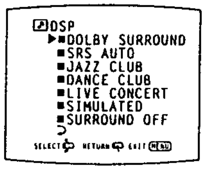
4 Press the rocker control up or down until the cursor points to "AUDIO."

5 Click the rocker control.
The AUDIO screen appears.


AUDIO
▶TREBLE
BASS
BALANCE
DSP
SELECT RETURN EXIT MENU

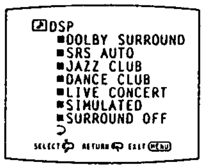
6 Press the rocker control up or down until the cursor points to "DSP."

7 Click the rocker control
The DSP menu appears.


DSP
▶■DOLBY SURROUND
■SRS AUTO
■JAZZ CLUB
■DANCE CLUB
■LIVE CONCERT
■SIMULATED
■SURROUND OFF
SELECT RETURN EXIT MENU

8 Press the rocker control up or down until the cursor points to "JAZZ CLUB."

9 Click the rocker control.
JAZZ CLUB mode is selected.


DSP
■DOLBY SURROUND
■SRS AUTO
■JAZZ CLUB
■DANCE CLUB
■LIVE CONCERT
■SIMULATED
■SURROUND OFF
SELECT RETURN EXIT MENU

To select a different mode
Repeat steps 8 – 9. (See the next page for the different modes you can choose.)

To further adjust the sound
Follow the instructions on pp. 55 – 56.

To return to the previous menu
Press A/V WINDOW +/– until the cursor points to " ⊃ MENU."
Then press RETURN.

To return to the main menu
Repeat the above, until you reach the main menu.

To return to the normal screen.
Press MENU on the Remote Commander.

When you select DOLBY SURROUND* mode
You receive wraparound sound with three-dimensional audio depth and presence when you connect main speakers and optional rear speakers.

Note
You must set REAR SPEAKER to "YES" (p. 58), or the display is blacked out and cannot be selected.
When using rear speakers, control the volume with the REAR VOLUME adjustment screen.

When you select SRS AUTO mode
You receive powerfully realistic sound that recaptures audio "clues" originally present but masked in the recording process, so that the action seems to happen all around you.

When you select JAZZ CLUB mode
You receive sound that gives a sense of space, with a touch of echo added.

When you select DANCE CLUB mode
You receive the sound effect of the hard floor and wall environment of a dance club.

When you select LIVE CONCERT mode
You receive sound that simulates the effect of being present at a live concert.

When you select SIMULATED mode
You receive monaural sound with a surround-like effect.

When you select SURROUND OFF mode
You receive sound without a surround effect.

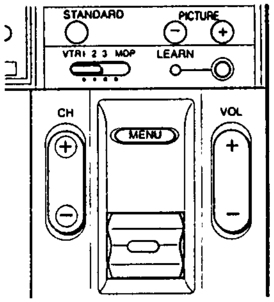
To further adjust sound qualities
Follow the instructions on pp. 55 – 56.

* Manufactured under license from Dolby Laboratories Licensing Corporation. Additionally licensed under one or more of the following patents: U.S. numbers 3,632,886, 3,746,792 and 3,959,590. "Dolby" and the double-D symbol ꟷ are trademarks of Dolby Laboratories Licensing Corporation.

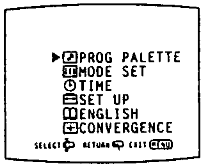
Adjusting sound quality

Follow these instructions to adjust the TREBLE, BASS and BALANCE.

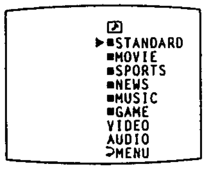
Remote Commander (Inner panel)


STANDARD
PICTURE
VTR1 2 3 MDP
LEARN
CH
VOL
MENU

1 Press MENU.
The main menu appears, and the cursor points to "PROG PALETTE."

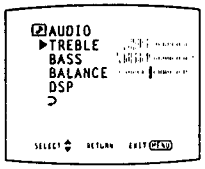

▶PROG PALETTE
MODE SET
TIME
SET UP
ENGLISH
CONVERGENCE
SELECT RETURN EXIT MENU

2 Click the rocker control.
The program palette menu appears.


▶■STANDARD
■MOVIE
■SPORTS
■NEWS
■MUSIC
■GAME
VIDEO
AUDIO
MENU

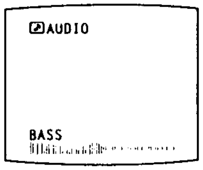
3 Press the rocker control up or down until the cursor points to "AUDIO."

4 Click the rocker control.
The AUDIO screen appears.


AUDIO
▶TREBLE
BASS
BALANCE
DSP
SELECT RETURN EXIT MENU

5 Press the rocker control up or down until the cursor points to the item you want to adjust.

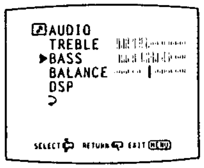
6 Click the rocker control.
The adjustment screen appears.



7 Press the rocker control up or down to make the adjustment.

Sound quality	Press the rocker control down	Press the rocker control up
TREBLE	To decrease the treble response	To increase the treble response
BASS	To decrease the bass response	To increase the bass response
BALANCE	To emphasize the left speaker's volume	To emphasize the right speaker's volume

8 Click the rocker control.
The adjustment is complete, and the AUDIO screen automatically reappears.


AUDIO
TREBLE
▶BASS
BALANCE
DSP
SELECT RETURN EXIT MENU

To adjust other items
Repeat steps 5 – 9.

To restore the factory settings for all the items
Select "STANDARD" on the program palette menu, and click the rocker control; or, press STANDARD on the Remote Commander.
All the items return to their original factory settings.

To return to the previous menu
Press the rocker control up or down until the cursor points to " ⊃ MENU." Then click the rocker control.

To return to the main menu
Repeat the above, until you reach the main menu.

To return to the normal screen
Press MENU on the Remote Commander.

Selecting an MTS (Multichannel TV Sound) mode

Follow these instructions to select an MTS mode.

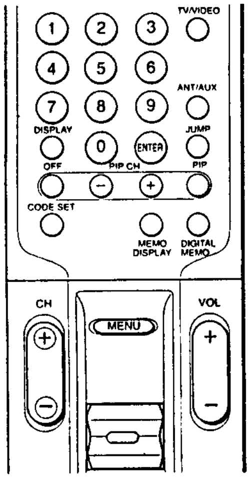
Select MAIN mode to listen to stereo sound.
The STEREO lamp on the projection TV lights up whenever a stereo broadcast is received.

Select SAP mode to listen to Second Audio Programs.

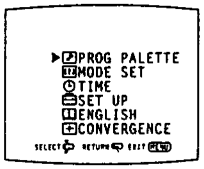
Select MONO mode to eliminate excessive noise during stereo broadcasts, caused by a weak incoming signal.

Note
If the projection TV is in video mode, the "MTS" display is shaded and cannot be selected.
Press TV/VIDEO on the projection TV or on the Remote Commander to change to TV mode.

Remote Commander (Outer panel)

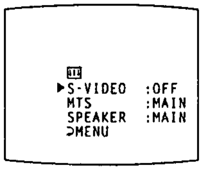

TV/VIDEO
1
2
3
4
5
6
ANT/AUX
7
8
9
DISPLAY
JUMP
0
ENTER
OFF
PIP CH
PIP
CODE SET
MEMO DISPLAY
DIGITAL MEMO
CH
VOL
MENU

1 Press MENU.
The main menu appears.


▶PROG PALETTE
MODE SET
TIME
SET UP
ENGLISH
CONVERGENCE
SELECT RETURN EXIT MENU

2 Press the rocker control up or down until the cursor points to "MODE SET."

3 Click the rocker control.
The mode set menu appears.


▶S-VIDEO :OFF
MTS :MAIN
SPEAKER :MAIN
MENU

4 Press the rocker control up or down until the cursor points to "MTS."

5 Click the rocker control.
The mode display turns red.

6 Press the rocker control up or down to select the mode you want.
Each time you press the rocker control up or down, "MAIN," "SAP" and "MONO" appear in sequence.

7 Click the rocker control.
The mode is selected.

To return to the previous menu
Press the rocker control up or down until the cursor points to " ⊃ MENU." Then click the rocker control.

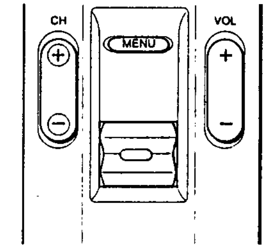
To return to the main menu
Repeat the above, until you reach the main menu.

To return to the normal screen
Press MENU on the Remote Commander.

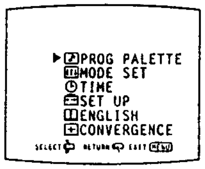
Setting SPEAKER — MAIN or CENTER

Follow these instructions to set SPEAKER to "CENTER" when you connect an audio system (p.19), and to "MAIN" when you want to listen to the sound from the projection TV speakers.

Remote Commander

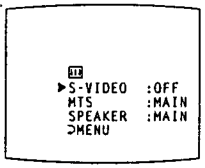


1 Press MENU.
The main menu appears.



2 Press the rocker control up or down until the cursor points to "MODE SET."

3 Click the rocker control.
The mode set menu appears.



▶S-VIDEO :OFF
MTS :MAIN
SPEAKER :MAIN
⊃MENU

4 Press the rocker control up or down until the cursor points to "MAIN SPEAKER."

5 Click the rocker control.
The mode display turns red.

6 Press the rocker control up or down to select "MAIN" or "CENTER."

7 Click the rocker control.
The setting is complete.

To return to the previous menu
Press the rocker control up or down until the cursor points to " ⊃ MENU."
Then click the rocker control.

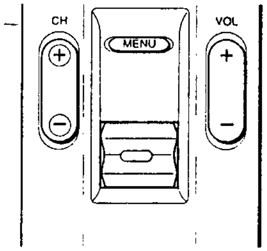
To return to the main menu
Repeat the above, until you reach the main menu.

To return to the normal screen
Press MENU on the Remote Commander.

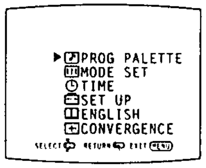
Setting REAR SPEAKER

Set REAR SPEAKER to "YES" to use optional speakers as rear speakers (p. 21).

Remote Commander

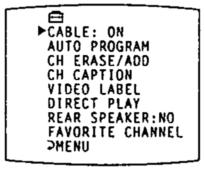


1 Press MENU.
The main menu appears.



2 Press the rocker control up or down until the cursor points to "SET UP."

3 Click the rocker control.
The set up menu appears.



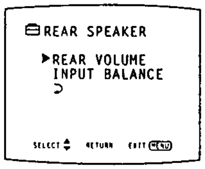
▶CABLE: ON
AUTO PROGRAM
CH ERASE/ADD
CH CAPTION
VIDEO LABEL
DIRECT PLAY
REAR SPEAKER:NO
FAVORITE CHANNEL
⊃MENU

4 Press the rocker control up or down until the cursor points to "REAR SPEAKER."

5 Click the rocker control.
The mode display turns red.

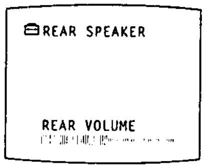
6 Press the rocker control up or down to select "YES."

7 Click the rocker control.
The REAR SPEAKER screen appears.



8 Press the rocker control up or down until the cursor points to the item you want to adjust.

9 Click the rocker control.
The adjustment screen appears.



10 Use the rocker control to make the adjustment.

REAR VOLUME	Press the rocker control down to decrease the rear speaker volume. Press the rocker control up to increase the rear speaker volume.
INPUT BALANCE	Press the rocker control down to improve the input balance. (Set to the lowest point for best input balance.)

Notes
- Setting REAR SPEAKER to "NO" does not turn off the rear speaker sound. Control the rear speaker volume with the REAR VOLUME adjustment.
- While the INPUT BALANCE adjustment screen is displayed, the sound from the front speakers is cut off.

11 Click the rocker control.
The setting is complete.

To set REAR SPEAKER to "NO"
Repeat steps 1 – 11, and select "NO" in step 6.

To return to the previous menu
Press the rocker control up or down until the cursor points to " ⊃ MENU." Then click the rocker control.

To return to the main menu
Repeat the above, until you reach the main menu.

To return to the normal screen
Press MENU on the Remote Commander.

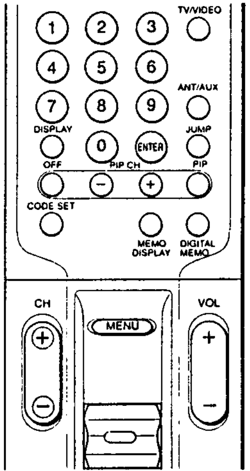
1-14. CUSTOMIZING THE SCREEN DISPLAY

Setting channel captions — CH CAPTION

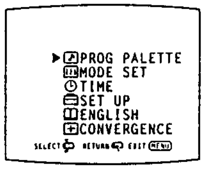
Follow these instructions to caption each channel number display with a name, for instance, the television station call letters. (You can set up to four letters or numbers).

Example: Caption channel 15 as "NBC."

Remote Commander (Outer panel)



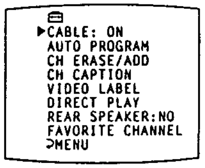
1 Press MENU.
The main menu appears.



```
▶PROG PALETTE
 MODE SET
 TIME
 SET UP
 ENGLISH
 CONVERGENCE
SELECT  RETURN  EXIT MENU
```

2 Press the rocker control up or down until the cursor points to "SET UP."

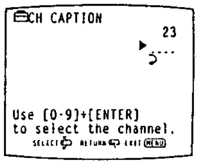
3 Click the rocker control.
The set up menu appears.



```
▶CABLE: ON
 AUTO PROGRAM
 CH ERASE/ADD
 CH CAPTION
 VIDEO LABEL
 DIRECT PLAY
 REAR SPEAKER:NO
 FAVORITE CHANNEL
 ⊃MENU
```

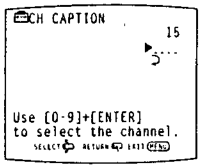
4 Press the rocker control up or down until the cursor points to "CH CAPTION."

5 Click the rocker control.
The CH CAPTION screen appears.



```
CH CAPTION
                    23
                 ▶....
Use [0-9]+[ENTER]
to select the channel.
SELECT  RETURN  EXIT MENU
```

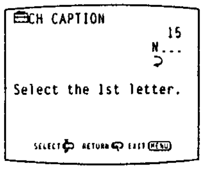
6 Press CH +/–, or press 1, 5 and ENTER to set channel "15."



```
CH CAPTION
                    15
                 ▶....
Use [0-9]+[ENTER]
to select the channel.
SELECT  RETURN  EXIT MENU
```

7 Click the rocker control.
The first caption space turns red.

8 Press the rocker control up or down to select "N."
Each time you press the rocker control up or down, "0" – "9," "A" – "Z," "&," "/," "-" and "_" (blank space) appear in sequence.



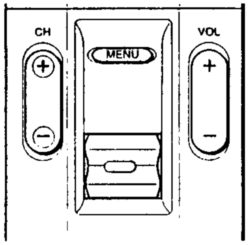
```
CH CAPTION
                    15
                  N...
Select the 1st letter.
SELECT  RETURN  EXIT MENU
```

9 Click the rocker control.
The second caption space turns red.

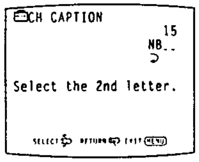
(Continued)

Setting channel captions – CH CAPTION
(Cont'd. from prev. page)

Remote Commander



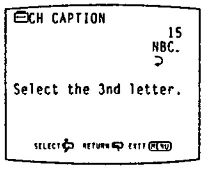
10 Press the rocker control up or down to select "B."



```
CH CAPTION
                    15
                  NB..
Select the 2nd letter.
SELECT  RETURN  EXIT MENU
```

11 Click the rocker control.
The third caption space turns red.

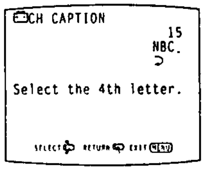
12 Press the rocker control up or down to select "C."



```
CH CAPTION
                    15
                  NBC.
Select the 3nd letter.
SELECT  RETURN  EXIT MENU
```

13 Click the rocker control.
The fourth caption space turns red.

14 Press the rocker control up or down to select a blank space.



```
CH CAPTION
                    15
                  NBC.
Select the 4th letter.
SELECT  RETURN  EXIT MENU
```

15 Click the rocker control.
The setting is complete.
When you select or display the channel number, the channel caption also appears.

To caption more channels
Repeat steps 6 – 15.

To erase unnecessary captions
Display the CH CAPTION screen, select the channel with the caption you want to erase, and select blank spaces for the channel caption; then click the rocker control.
The caption for that channel is erased.

To return to the previous menu
Press the rocker control up or down until the cursor points to " ⊃ MENU."
Then click the rocker control.

To return to the main menu
Repeat the above, until you reach the main menu.

To return to the normal screen
Press MENU on the Remote Commander.

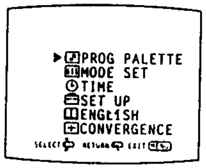
Note
You can set up to 32 channel captions. If the memory is full, "The memory is full, sorry" appears on the screen. Erase any unnecessary captions, and begin again.

Setting VIDEO LABEL

Follow these instructions to label each input mode, in order to identify the equipment connected to each input terminal.

Example: Label VIDEO 1 IN as "VHS."

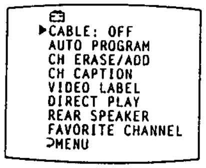
1 Press MENU.
The main menu appears.



```
▶PROG PALETTE
 MODE SET
 TIME
 SET UP
 ENGLISH
 CONVERGENCE
SELECT RETURN EXIT
```

2 Press the rocker control up or down until the cursor points to "SET UP."

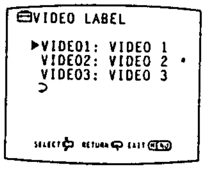
3 Click the rocker control.
The set up menu appears.



```
▶CABLE: OFF
 AUTO PROGRAM
 CH ERASE/ADD
 CH CAPTION
 VIDEO LABEL
 DIRECT PLAY
 REAR SPEAKER
 FAVORITE CHANNEL
 MENU
```

4 Press the rocker control up or down until the cursor points to "VIDEO LABEL."

5 Click the rocker control.
The VIDEO LABEL screen appears.

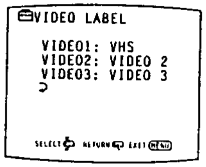


```
VIDEO LABEL
▶VIDEO1: VIDEO 1
 VIDEO2: VIDEO 2
 VIDEO3: VIDEO 3
 
SELECT RETURN EXIT
```

6 Press the rocker control up or down until the cursor points to the input mode you want to label. (In this case, the cursor is already pointing to "VIDEO 1.")

7 Click the rocker control.
The label display turns red.

8 Press the rocker control up or down to select "VHS."



```
VIDEO LABEL
 VIDEO1: VHS
 VIDEO2: VIDEO 2
 VIDEO3: VIDEO 3
 
SELECT RETURN EXIT
```

Each time you press the rocker control up or down, the label changes:

VIDEO 1 → BETA → 8mm → VHS → LD → S-VIDEO ↩

9 Click the rocker control.
The setting is complete.
When you select or display the video mode, the video label appears.

To label other input modes
Repeat steps 6 – 9.

To change a label
Same as above.

To return to the previous menu
Press the rocker control up or down until the cursor points to " ⊃ MENU." Then click the rocker control.

To return to the main menu
Repeat the above, until you reach the main menu.

To return to the normal screen
Press MENU on the Remote Commander.

1-15. USING TIMER-ACTIVATED FUNCTIONS

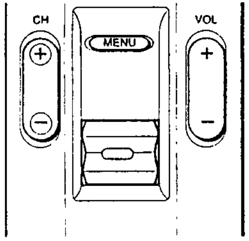
Setting DAYLIGHT SAVING

If you live in an area that uses daylight savings time, set DAYLIGHT SAVING to "YES" or "NO" depending on the season, before setting the current time. At the next daylight savings date, you will be able to automatically adjust all the time-related settings (CURRENT TIME, ON/OFF TIMER and CHANNEL BLOCK) simply by changing the DAYLIGHT SAVING setting.

When setting DAYLIGHT SAVING:

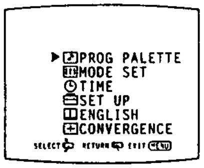
- **After the first Sunday in April (spring daylight savings)**
  Set to "YES" before setting the current time.
  Then, on the last Sunday in October (fall daylight savings), set to "NO."
  All the time-related settings automatically move one hour back.
- **After the last Sunday in October (fall daylight savings)**
  Set to "NO" before setting the current time.
  Then, on the first Sunday in April (spring daylight savings), set to "YES."
  All the time-related settings automatically move one hour ahead.

Remote Commander



Follow these instructions to set DAYLIGHT SAVING to "YES" or "NO."

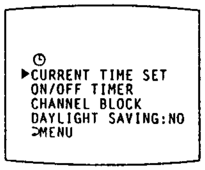
1 Press MENU.
The main menu appears.



```
▶PROG PALETTE
 MODE SET
 TIME
 SET UP
 ENGLISH
 CONVERGENCE
SELECT RETURN EXIT
```

2 Press the rocker control up or down until the cursor points to "TIME."

3 Click the rocker control.
The time menu appears.



```
▶CURRENT TIME SET
 ON/OFF TIMER
 CHANNEL BLOCK
 DAYLIGHT SAVING:NO
 MENU
```

4 Press the rocker control up or down until the cursor points to "DAYLIGHT SAVING."

5 Click the rocker control.
The mode display turns red.

6 Press the rocker control up or down to select "YES" or "NO."
The setting is complete.

7 Click the rocker control.

To return to the previous menu
Press the rocker control up or down until the cursor points to " ⊃ MENU."
Then click the rocker control.

To return to the main menu
Repeat the above, until you reach the main menu.

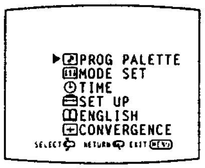
To return to the normal screen.
Press MENU on the Remote Commander.

Setting the clock — CURRENT TIME SET

Follow these instructions to set the current time. The correct current time must be set in order to use the other time-related functions (DAYLIGHT SAVING, ON/OFF TIMER, CHANNEL BLOCK).

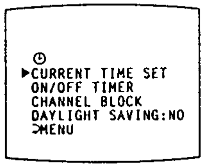
Example: Set the time to 3:15 PM, Monday.

1 Press MENU.
The main menu appears.

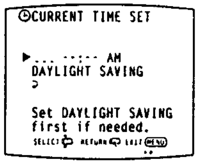

▶PROG PALETTE
MODE SET
TIME
SET UP
ENGLISH
CONVERGENCE
SELECT RETURN EXIT MENU

2 Press the rocker control up or down until the cursor points to "TIME."

3 Click the rocker control.
The time menu appears, and the cursor points to "CURRENT TIME SET."


▶CURRENT TIME SET
ON/OFF TIMER
CHANNEL BLOCK
DAYLIGHT SAVING:NO
MENU

4 Click the rocker control again.
The CURRENT TIME SET screen appears, with a reminder to set DAYLIGHT SAVING.


CURRENT TIME SET

▶... --:-- AM
DAYLIGHT SAVING

Set DAYLIGHT SAVING first if needed.
SELECT RETURN EXIT MENU

If you do not need to set DAYLIGHT SAVING, click the rocker control and continue from step 5.

To set daylight saving

a Press the rocker control up or down until the cursor points to "DAYLIGHT SAVING."

b Click the rocker control.
The time menu appears, and the cursor points to "DAYLIGHT SAVING."

c Click the rocker control.

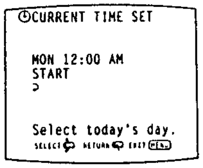
d Press the rocker control up or down to select "YES" or "NO."

e Click the rocker control.
The setting is complete.

To set the time
Press the rocker control up or down until the cursor points to "CURRENT TIME SET"; click the rocker control, then continue from step 5.

5 Click the rocker control.
The CURRENT TIME SET screen appears, and the "SUN" display appears (red).

6 Press the rocker control up or down to select "MON."
Each time you press the rocker control up or down, the day changes consecutively.


CURRENT TIME SET

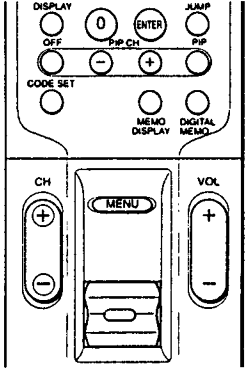
MON 12:00 AM
START

Select today's day.
SELECT RETURN EXIT MENU

(Continued)

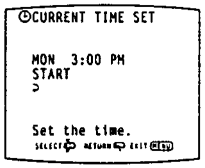
Setting the clock — CURRENT TIME SET
(Cont'd. from prev. page)

Remote Commander (Outer panel)


DISPLAY
0
ENTER
JUMP
OFF
PIP CH
PIP
CODE SET
MEMO DISPLAY
DIGITAL MEMO
CH
MENU
VOL

7 Click the rocker control.
The hour and am/pm displays turn red.

8 Press the rocker control up or down to set "3:00PM."
Each time you press the rocker control up or down, the hour changes in sequence beginning with "12:00AM."

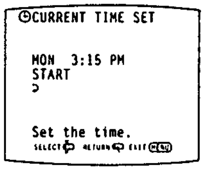

CURRENT TIME SET

MON 3:00 PM
START

Set the time.
SELECT RETURN EXIT MENU

9 Click the rocker control.
The minute display turns red.

10 Press the rocker control up or down to select "15" (minutes).
Each time you press the rocker control up or down, the minutes change in sequence.


CURRENT TIME SET

MON 3:15 PM
START

Set the time.
SELECT RETURN EXIT MENU

11 Click the rocker control.
The cursor points to "START."

12 Check the actual time, and click the rocker control to start the clock.
The setting is complete.

To reset the time
Display the CURRENT TIME SET screen and repeat steps 5 – 12.

To display the current time
Press DISPLAY.

To return to the previous menu
Press the rocker control up or down until the cursor points to " MENU."
Then click the rocker control.

To return to the main menu
Repeat the above, until you reach the main menu.

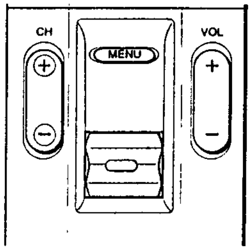
To return to the normal screen.
Press MENU on the Remote Commander.

Setting the ON/OFF TIMER

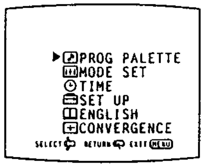
Follow these instructions to make the program of your choice appear on the screen at a specified time.

Example: Set the timer to turn on the projection TV every Monday through Friday at 1:30 AM for 3 hours, on channel 8, as PROGRAM 1. (You can set up to three programs.)

Remote Commander



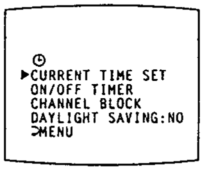
1 Press MENU.
The main menu appears.



```
▶PROG PALETTE
 MODE SET
 TIME
 SET UP
 ENGLISH
 CONVERGENCE
```

2 Press the rocker control up or down until the cursor points to "TIME."

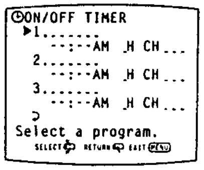
3 Click the rocker control.
The time menu appears.



```
▶CURRENT TIME SET
 ON/OFF TIMER
 CHANNEL BLOCK
 DAYLIGHT SAVING:NO
 ⊃MENU
```

4 Press the rocker control up or down until the cursor points to "ON/OFF TIMER."

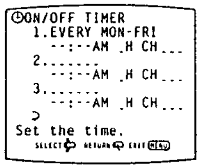
5 Click the rocker control.
The ON/OFF TIMER screen appears, and the cursor points to "1."



```
ON/OFF TIMER
▶1.......
   --:--AM _H CH...
 2.......
   --:--AM _H CH...
 3.......
   --:--AM _H CH...
 ⊃
Select a program.
```

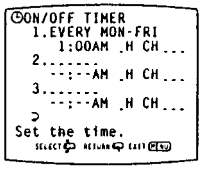
6 To set program 1, click the rocker control.
(To set program 2 or 3, press the rocker control up or down until the cursor points to that program; then click the rocker control.)
The day input space turns red.

7 Press the rocker control up or down to select "EVERY MON-FRI"; then click the rocker control.
Each time you press the rocker control up, the days of the week change as shown in Fig. 1 (p. 67).



```
ON/OFF TIMER
 1.EVERY MON-FRI
   --:--AM _H CH...
 2.......
   --:--AM _H CH...
 3.......
   --:--AM _H CH...
 ⊃
Set the time.
```

8 Press the rocker control up or down to select "1:00AM"; then click the rocker control.
Each time you press the rocker control up or down, the hour changes in sequence.

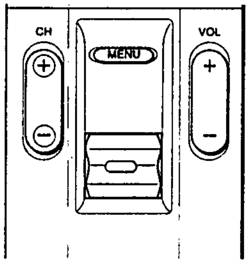


```
ON/OFF TIMER
 1.EVERY MON-FRI
     1:00AM _H CH...
 2.......
   --:--AM _H CH...
 3.......
   --:--AM _H CH...
 ⊃
Set the time.
```

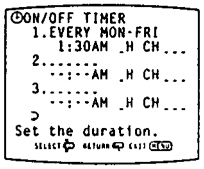
(Continued)

Setting the ON-OFF TIMER *(Cont'd from prev. page)*

Remote Commander

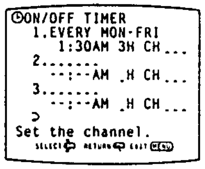


9 Press the rocker control up or down to select "30" (minutes);
Then click the rocker control.
Each time you press the rocker control up or down, the minutes change in sequence.



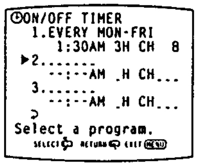
```
ON/OFF TIMER
 1.EVERY MON-FRI
     1:30AM _H CH...
 2.......
   --:--AM _H CH...
 3.......
   --:--AM _H CH...
 ⊃
Set the duration.
```

10 Press the rocker control up or down to select "3" (hour duration); then click the rocker control.
Each time you press the rocker control up or down, the duration changes from "1" – "6" in sequence.



```
ON/OFF TIMER
 1.EVERY MON-FRI
     1:30AM 3H CH...
 2.......
   --:--AM _H CH...
 3.......
   --:--AM _H CH...
 ⊃
Set the channel.
```

11 Press the rocker control up or down to select "8" (channel); then click the rocker control.
The TIMER indicator lights, indicating that the setting is complete.
Each time you press the rocker control up or down, the channel number changes from 1 – 125 in sequence.



```
ON/OFF TIMER
 1.EVERY MON-FRI
     1:30AM 3H CH  8
▶2.......
   --:--AM _H CH...
 3.......
   --:--AM _H CH...
 ⊃
Select a program.
```

The display "TIMER WILL BE OFF" appears on the screen one minute before the timer duration ends.

To set program 2 or 3.
Click the rocker control and repeat steps 6 – 11.

To erase an ON/OFF TIMER setting
Display the ON/OFF TIMER screen, select the setting you want to erase, and select the underlined spaces for the day setting.
The ON/OFF TIMER setting is erased.

To enter a new ON/OFF TIMER setting
Display the ON/OFF TIMER screen and repeat steps 6 – 11.

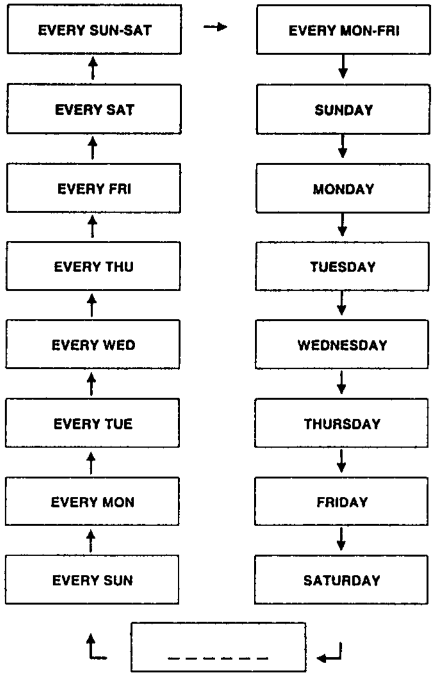
To return to the previous menu
Press the rocker control up or down until the cursor points to " ⊃ MENU."
Then click the rocker control.

To return to the main menu
Repeat the above, until you reach the main menu.

To return to the normal screen.
Press MENU on the Remote Commander.

Note
If you unplug the projection TV or a power failure occurs, both the clock and timer settings will be erased. Reset the current time; then set the timer.

Fig. 1
Selecting the day(s) of the week
When you press the rocker control up, the days of the week appear in the following order:

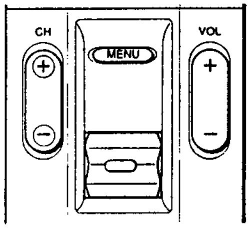

EVERY SUN-SAT
EVERY SAT
EVERY FRI
EVERY THU
EVERY WED
EVERY TUE
EVERY MON
EVERY SUN
EVERY MON-FRI
SUNDAY
MONDAY
TUESDAY
WEDNESDAY
THURSDAY
FRIDAY
SATURDAY

Setting CHANNEL BLOCK

Follow these instructions to prevent a channel from appearing on the screen during the time that you specify. You can use this function to prevent children from watching unsuitable programs.

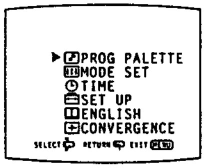
Example: Set CHANNEL BLOCK every Saturday at 4:30 PM for 1 hour, on Channel 12.

Remote Commander



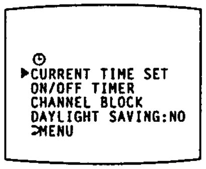
Note
If you have not set the current time, the "CHANNEL BLOCK" display is shaded and cannot be selected.

1 Press MENU.
The main menu appears.


▶PROG PALETTE
MODE SET
TIME
SET UP
ENGLISH
CONVERGENCE
SELECT RETURN EXIT MENU

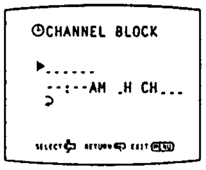
2 Press the rocker control up or down until the cursor points to "TIME."

3 Click the rocker control.
The time menu appears.

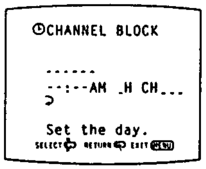

▶CURRENT TIME SET
ON/OFF TIMER
CHANNEL BLOCK
DAYLIGHT SAVING:NO
MENU

4 Press the rocker control up or down until the cursor points to "CHANNEL BLOCK."

5 Click the rocker control.
The CHANNEL BLOCK screen appears, and the cursor points to the day input space.

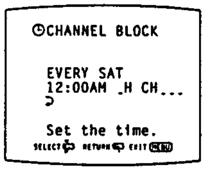

CHANNEL BLOCK
▶......
--:--AM .H CH...
SELECT RETURN EXIT MENU

6 Click the rocker control.
The day input space turns red.


CHANNEL BLOCK
......
--:--AM .H CH...
SELECT RETURN EXIT MENU

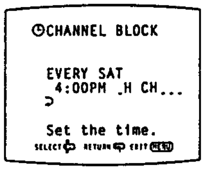
Set the day.

7 Press the rocker control up or down to select "EVERY SAT"; then click the rocker control.
Each time you press the rocker control up or down, the days of the week change as shown in Fig. 1 (p. 67).


CHANNEL BLOCK
EVERY SAT
12:00AM .H CH...
SELECT RETURN EXIT MENU

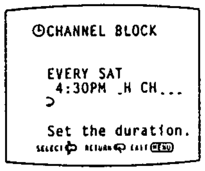
Set the time.

8 Press the rocker control up or down to select "4:00PM"; then click the rocker control.
Each time you press the rocker control up or down, the hour changes in sequence.


CHANNEL BLOCK
EVERY SAT
4:00PM .H CH...
SELECT RETURN EXIT MENU

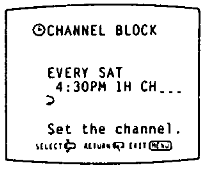
Set the time.

9 Press the rocker control up or down to select ":30" (minutes); then click the rocker control.
Each time you press the rocker control up or down, the minutes change in sequence.



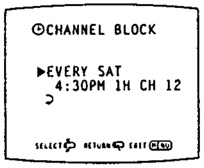
```
⊙CHANNEL BLOCK

EVERY SAT
 4:30PM _H CH...
⊃

Set the duration.
SELECT  RETURN  EXIT MENU
```

10 Press the rocker control up or down to select "1" (hour duration); then click the rocker control.
Each time you press the rocker control up or down, the duration changes from "1" – "6" in sequence.



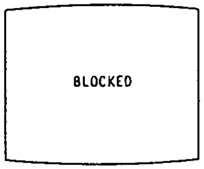
```
⊙CHANNEL BLOCK

EVERY SAT
 4:30PM 1H CH...
⊃

Set the channel.
SELECT  RETURN  EXIT MENU
```

11 Press the rocker control up or down to select "12" (channel); then click the rocker control.
The setting is complete.
Each time you press the rocker control up or down, the channel number changes from "1" – "125" in sequence.



```
⊙CHANNEL BLOCK

▶EVERY SAT
  4:30PM 1H CH 12
 ⊃

SELECT  RETURN  EXIT MENU
```

At the specified time, "BLOCKED" appears in red on the screen, and the picture of the specified channel is blocked and the sound is muted.



```
BLOCKED
```

To erase a CHANNEL BLOCK setting
Display the CHANNEL BLOCK screen and select the underlined spaces for the day setting.
The CHANNEL BLOCK setting is erased.

To enter a new CHANNEL BLOCK setting
Display the CHANNEL BLOCK screen and repeat steps 4 – 10. (You can only set one CHANNEL BLOCK at a time.)

To return to the previous menu
Press the rocker control up or down until the cursor points to " ⊃ MENU."
Then click the rocker control.

To return to the main menu
Repeat the above, until you reach the main menu.

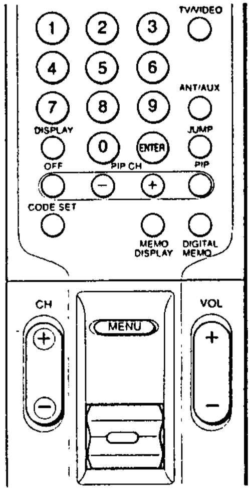
To return to the normal screen.
Press MENU on the Remote Commander.

Note
If the ON/OFF TIMER is set for an overlapping time (pp. 65 – 67), the later time setting takes precedence. For example, if CHANNEL BLOCK is set for 2:00 PM and ON/OFF TIMER is set for 3:00 PM, ON/OFF TIMER will take effect at 3:00 PM.

1-16. SETTING FAVORITE CHANNEL

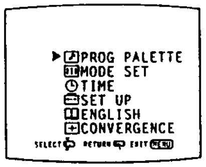
By setting FAVORITE CHANNEL, you can select the channels you use most frequently (up to seven channels) simply by clicking the rocker control on the Remote Commander.

Remote Commander (Outer panel)



Follow these instructions to set the channels.

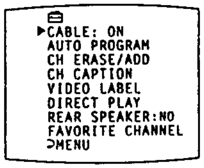
1 Press MENU.
The main menu appears.



```
▶PROG PALETTE
 MODE SET
 TIME
 SET UP
 ENGLISH
 CONVERGENCE
SELECT  RETURN  EXIT MENU
```

2 Press the rocker control up or down until the cursor points to "SET UP."

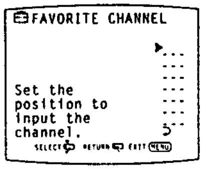
3 Click the rocker control.
The set up menu appears.



```
▶CABLE: ON
 AUTO PROGRAM
 CH ERASE/ADD
 CH CAPTION
 VIDEO LABEL
 DIRECT PLAY
 REAR SPEAKER:NO
 FAVORITE CHANNEL
 ⊃MENU
```

4 Press the rocker control up or down until the cursor points to "FAVORITE CHANNEL."

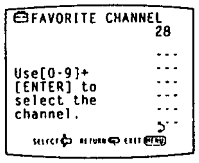
5 Click the rocker control.
The FAVORITE CHANNEL screen appears, and the cursor points to the first channel position.



```
FAVORITE CHANNEL

              ▶...
               ...
               ...
Set the        ...
position to    ...
input the      ...
channel.      ⊃...
SELECT  RETURN  EXIT MENU
```

6 Press the rocker control up or down to select the channel position; then click the rocker control.

7 Press 0 – 9 and ENTER to set the channel number.



```
FAVORITE CHANNEL
               28

               ...
Use[0-9]+      ...
[ENTER] to     ...
select the     ...
channel.       ...
              ⊃...
SELECT  RETURN  EXIT MENU
```

8 Click the rocker control.
The setting is complete.

To set other channels
Repeat steps 6 – 8.

To erase a favorite channel setting
Press the rocker control up or down until the cursor points to the channel number you want to erase; then press 0 and ENTER.

To reset a favorite channel setting
Display the FAVORITE CHANNEL screen and repeat steps 6 – 8.

To return to the previous menu
Press the rocker control up or down until the cursor points to " ⊃ MENU." Then click the rocker control.

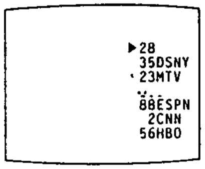
To return to the main menu
Repeat the above, until you reach the main menu.

To return to the normal screen.
Press MENU on the Remote Commander.

Selecting a favorite channel

After setting the channels, follow these instructions to select the channel you want to watch.

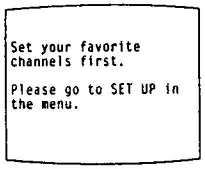
1 Click the rocker control.
The FAVORITE CHANNEL display appears.


▶28
35DSNY
·23MTV
88ESPN
2CNN
56HBO

Note
If you have set channel captions (pp. 59 – 60), the captions appear with the channel numbers.

2 Press the rocker control up or down to select the channel you want to watch; then click the rocker control.
The channel is selected.

If you click the rocker control on the Remote Commander before setting FAVORITE CHANNEL, this screen appears.


Set your favorite channels first.

Please go to SET UP in the menu.

Follow steps 1 – 8 to set your favorite channels, and then make the selection.

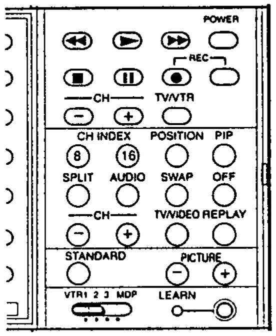
1-17. USING THE PROGRAMMABLE REMOTE COMMANDER

You can operate other video equipment (such as VCRs, video disc players and cable boxes) that have an infrared remote detector with this supplied Remote Commander.

Operating Sony video equipment

Follow these instructions to operate Sony video cassette recorders (Beta, 8 mm and VHS) and video disc players (including multi-disc players).

Remote Commander (Inner panel)



1 Set the VTR1-2-3 MDP selector according to the video equipment you want to operate.

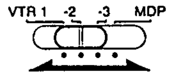


Fig. 2: Video equipment settings

If you want to operate a:	set to:
Beta, ED Beta VCR	VTR 1
8 mm VCR	VTR 2
VHS VCR	VTR 3
Video disc player	MDP

2 Use the video operating buttons to control the connected equipment.

Fig. 3: Operating a VCR (VTR1, 2, 3)	
To turn on or off	Press POWER.
To change channels (when watching TV programs through the VCR's tuner)	Press CH +/–.
To record	Press ● and REC simultaneously.
To play	Press ►.
To stop	Press ■.
To fast forward	Press ►►.
To rewind the tape	Press ◄◄.
To pause	Press ❚❚. *To resume normal playback, press again.*
To search the picture forward and backward	Keep pressing ►► or ◄◄ during playback. *To resume normal playback, release the button.*
To change input mode	Press TV/VTR.

Fig. 4: Operating a Video Disc Player (MDP)

To turn on or off	Press POWER.
To play	Press ►.
To stop	Press ■.
To pause	Press ❚❚. *To resume normal playback, press again.* **Note** This function is effective only for CAV (standard-play disc). With CLV (extended-play disc), the projection TV goes off (standby mode) if you press ❚❚.
To search the picture forward and backward	Keep pressing ►► or ◄◄ during playback. *To resume normal playback, release the button.*

Notes

- If the video equipment does not have a certain function, the corresponding button on this Remote Commander will not operate.
- If you set another manufacturer's code to a VTR1-2-3 MDP selector position (pp. 74 – 75), you must also set the Sony code to operate Sony equipment.

Caution

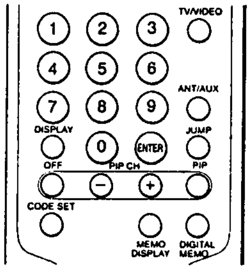
When you replace the batteries, do it within approximately 30 minutes. Otherwise the settings you made under the Pre-Programmed function (pp. 74 – 76) and Learning function (p. 77) may be erased.

Operating non-Sony or Sony video equipment

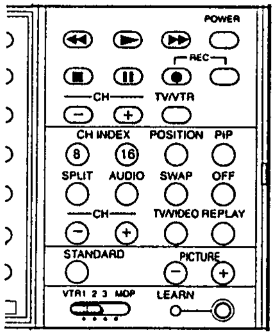
Follow these instructions to set the manufacturer's code, which will enable you to operate non-Sony and Sony video equipment with the pre-programmed Remote Commander.

Example: Operate an RCA video cassette recorder connected to the VIDEO 2 IN jacks.

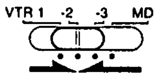
Remote Commander
(Outer panel)


1
2
3
TV/VIDEO
4
5
6
7
8
9
ANT/AUX
DISPLAY
0
ENTER
JUMP
OFF
PIP CH
PIP
CODE SET
MEMO DISPLAY
DIGITAL MEMO

(Inner panel)

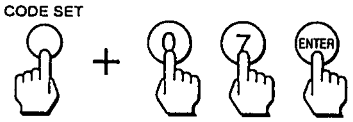

POWER
REC
CH
TV/VTR
CH INDEX
8
16
POSITION
PIP
SPLIT
AUDIO
SWAP
OFF
CH
TV/VIDEO
REPLAY
STANDARD
PICTURE
VTR1 2 3 MDP
LEARN

1 Set the VTR1-2-3 MDP selector to VTR2.



Note
To use another manufacturer's equipment besides a Sony VCR, set the selector to a position not being used for your Sony video equipment.

2 While pressing CODE SET, press 0, 7 and ENTER to set RCA's code number. (For manufacturer code numbers, see Figs. 5, 6 and 7 on p. 75.)


CODE SET
+
0
7
ENTER

A long beep sounds, indicating that the code has been set.

Note
If you press a wrong code, or if the code has not been set, four short beeps sound. Repeat step 3 to set the code.

3 Use the video operating buttons to operate the connected equipment. (see Fig. 3 on p. 72 and Fig. 4 on p. 73.)

Fig. 5: VCR manufacturer code numbers

MANUFACTURER	CODE
SONY	01, 02, 03
CANON	05
EMERSON	22, 30, 33
FISHER	10, 11, 12, 15
FUNAI	29
GENERAL ELECTRIC	05, 08
GOLDSTAR	25
HITACHI	07, 08, 36
JVC	16, 35
MAGNAVOX	05, 06, 09
MITSUBISHI	18, 19, 26, 27
MULTITECH	29
NEC	16, 23, 31
PANASONIC	05, 06
PHILCO	05, 06
PHILIPS	05, 06, 09
QUASAR	05, 06
RCA	07, 08
SAMSUNG	24, 32
SANYO	11, 15
SCOTT	21
SHARP	13, 14
SHINTOM	34
SYLVANIA	05, 06, 09
SYMPHONIC	29
TEKNIKA	28, 29
TOSHIBA	20, 21
TOTE VISION	25
ZENITH	17

Fig. 6: MDP manufacturer code numbers

MANUFACTURER	CODE
SONY	04
KENWOOD	58
MAGNAVOX	52
MARANZ	54
MITSUBISHI	51
PANASONIC	55
PHILIPS	52
PIONEER	51
RCA	51
SANYO	57
SHARP	56
YAMAHA	53

Fig. 7: Sony Equipment and Code Numbers

SONY EQUIPMENT	CODE
Beta, ED Beta VCR	01
8 mm VCR	02
VHS VCR	03
Video disc player	04

Note

In some rare cases, you may not be able to operate your non-Sony video equipment with the supplied Remote Commander. This is because your equipment may use a code that is not provided with this Remote Commander. In this case, please use the equipment's own remote control unit.

For your convenience

Write the manufacturer name and code number for your equipment onto one of the supplied self-adhesive labels and affix the label to the Remote Commander for easy reference.

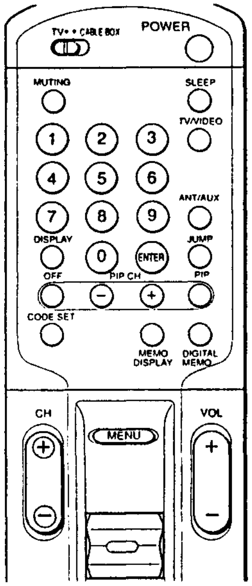
	BRAND	CODE
1		
2		
3		

Operating a cable converter box

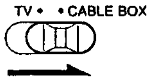
Follow these instructions to set the manufacturer's code, which will enable you to operate a connected cable converter box with the pre-programmed Remote Commander.

Example: Operate a connected Zenith cable converter box.

Remote Commander (Outer panel)



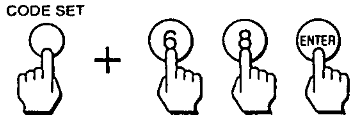
1 Set the TV/CABLE BOX selector to CABLE BOX.



Notes

- If more than one code number is listed, try entering them one by one, until you come to the correct code for your equipment.
- If you enter a new code number, the code number you previously entered at that setting is erased.
- In some rare cases, your equipment may use a code that is not provided with this Remote Commander and you may not be able to operate your cable converter box with the supplied Remote Commander. In this case, use the equipment's own remote control unit.

2 While pressing CODE SET, press 6 and 8 (Zenith's code number — see Fig. 8) and ENTER.

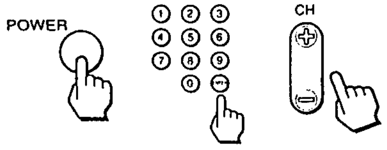


A long beep sounds, indicating that the code has been set.

Note

If you press a wrong code, or if the code has not been set, four short beeps sound. Repeat step 2 to set the code.

3 Use the projection TV control buttons (POWER, 0 – 9, ENTER and CH +/–) to operate the cable converter box.



To return to the normal screen

Set the TV/CABLE BOX selector to TV; then use the projection TV control buttons to control the projection TV.

For more details on operating the cable box

Refer to the operating instructions that come with the cable box.

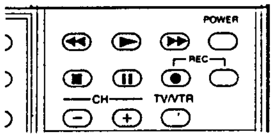
Fig. 8: Cable box manufacturer code numbers

MANUFACTURER	CODE
JERROLD	60, 61, 62, 63, 64, 65
PIONEER	69, 70
SCIENTIFIC ATLANTA	66, 67
TOCOM	71, 72
ZENITH	68

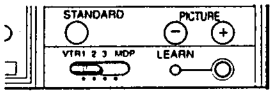
Operating non-Sony or Sony audio and video equipment (Learning function)

Follow these instructions to "teach" any of the programmable buttons to operate the function of another Remote Commander. Use Learning in order to operate non-Sony and Sony audio equipment, and a remote controlled cable converter box or video equipment whose manufacturer code is not listed (Fig. 5, Fig. 6 – p. 75; Fig. 8 – p. 76).

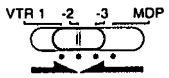
Remote Commander (Inner panel)
Programmable buttons


POWER
REC
CH
TV/VTR

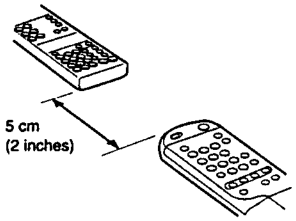
LEARN button and indicator lamp


STANDARD
PICTURE
VTR1 2 3 MDP
LEARN

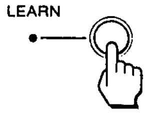
1 Set the VTR1-2-3 MDP selector to VTR3 or MDP. (Learning will not work in VTR1 or VTR2 settings.)



2 Place the supplied Remote Commander head to head with equipment's remote commander, approximately 5 cm (2 inches) apart.


5 cm
(2 inches)

3 Press LEARN.
The LEARN indicator lights up (red).



4 Momentarily press the button of the supplied Remote Commander that you want to learn a function.
The LEARN indicator goes off and lights up again, and a short beep sounds, indicating that the Remote Commander is ready for learning.

The Remote Commander beeps repeatedly if an error has occurred. Repeat this step.

5 Press and hold down the button of the other remote commander, whose function you want to "teach," until the LEARN indicator turns red.
A long beep sounds and the LEARN indicator goes off and lights up again, indicating that learning is complete. If not, repeat steps 4 and 5.

6 Repeat steps 4 and 5 to teach functions to other buttons.

7 Press LEARN.
The LEARN indicator lamp lights up (red), then goes off, indicating that learning is complete.

For accurate learning
Do not move the remote commanders during the learning process.

Notes
- If the memory is full, three short beeps sound and the LEARN indicator flashes off and on. Use learning to re-program a button whose learned function you do not use often; the previously learned function is erased.
- If the other remote commander's signal cannot be learned, a short beep sounds and the LEARN indicator flashes once.
- If you press a button that cannot be used for learning, four short beeps sound and the LEARN indicator flashes four times.

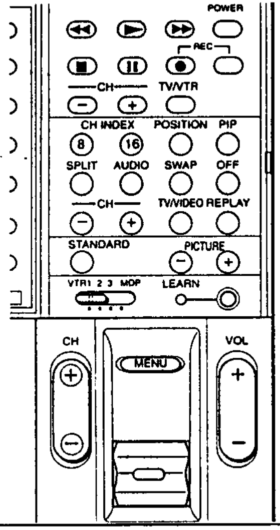
Selecting a VCR mode directly — DIRECT PLAY

Follow these instructions to switch from TV to VCR mode by simply pressing the ► (playback) button on the supplied Remote Commander.

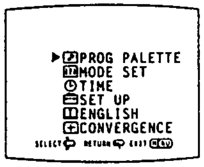
Example: Connect your VCR to the VIDEO 1 IN jacks, and set the VTR1-2-3 MDP selector to VTR2. When you press ►, the input mode changes to the VCR connected to the VIDEO 1 IN jacks.

After completing the steps below, the VTR selector position is retained in the projection TV's memory.

Remote Commander (Inner panel)

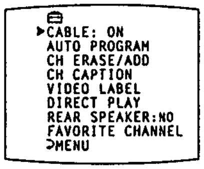

POWER
REC
CH
TV/VTR
CH INDEX
POSITION
PIP
8
16
SPLIT
AUDIO
SWAP
OFF
CH
TV/VIDEO
REPLAY
STANDARD
PICTURE
VTR1 2 3 MDP
LEARN
CH
MENU
VOL

1 Press MENU.
The main menu appears.


►PROG PALETTE
MODE SET
TIME
SET UP
ENGLISH
CONVERGENCE
SELECT RETURN EXIT MENU

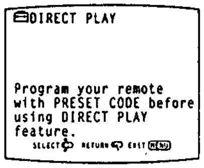
2 Press the rocker control up or down until the cursor points to "SET UP."

3 Click the rocker control.
The set up menu appears.


►CABLE: ON
AUTO PROGRAM
CH ERASE/ADD
CH CAPTION
VIDEO LABEL
DIRECT PLAY
REAR SPEAKER:NO
FAVORITE CHANNEL
MENU

4 Press the rocker control up or down until the cursor points to "DIRECT PLAY."

5 Click the rocker control.
A message screen appears.

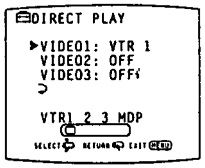

DIRECT PLAY

Program your remote with PRESET CODE before using DIRECT PLAY feature.

SELECT RETURN EXIT MENU

Note
This screen reminds you to set the manufacturer's code, if you have not already done so (pp. 74 – 76).

6 Click the rocker control again.
The DIRECT PLAY screen appears.


DIRECT PLAY

►VIDEO1: VTR 1
VIDEO2: OFF
VIDEO3: OFF

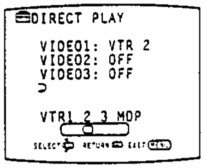
VTR1 2 3 MDP
SELECT RETURN EXIT MENU

7 Press the rocker control up or down until the cursor points to the video input mode. (When the video equipment is connected to VIDEO 1 IN, select "VIDEO1.")

8 Click the rocker control.
The mode display turns red.

---

9 Press the rocker control up or down to select the VTR selector mode you have set on the Remote Commander. (When the VTR1-2-3 MDP selector is set to VTR2, select "VTR 2.")
Each time you press the rocker control up or down, "VTR 1," "VTR 2," "VTR 3," "MDP" and "OFF" appear in sequence.



```
DIRECT PLAY

VIDEO1: VTR 2
VIDEO2: OFF
VIDEO3: OFF
⊃

VTR1 2 3 MDP
```

---

10 Click the rocker control.
The direct play setting is complete.

To set direct play for other connected video equipment
Repeat steps 7 – 10.

To return to the previous menu
Press the rocker control up or down until the cursor points to " ⊃ MENU."
Then click the rocker control.

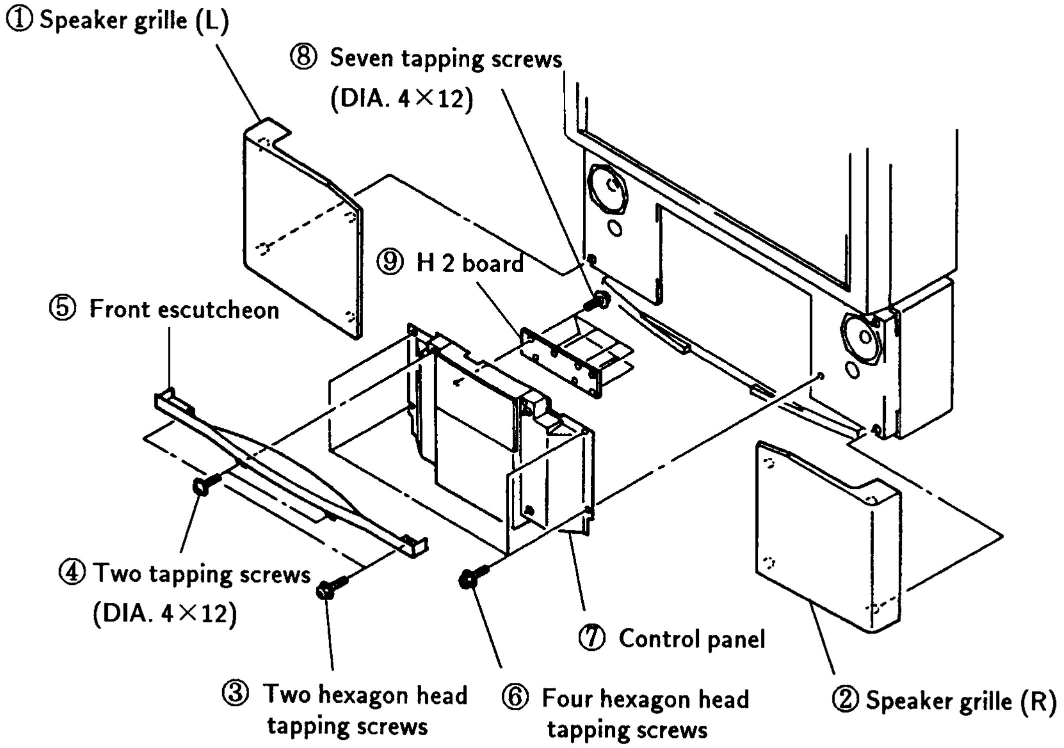
To return to the main menu
Repeat the above, until you reach the main menu.

To return to the normal screen.
Press MENU on the Remote Commander.

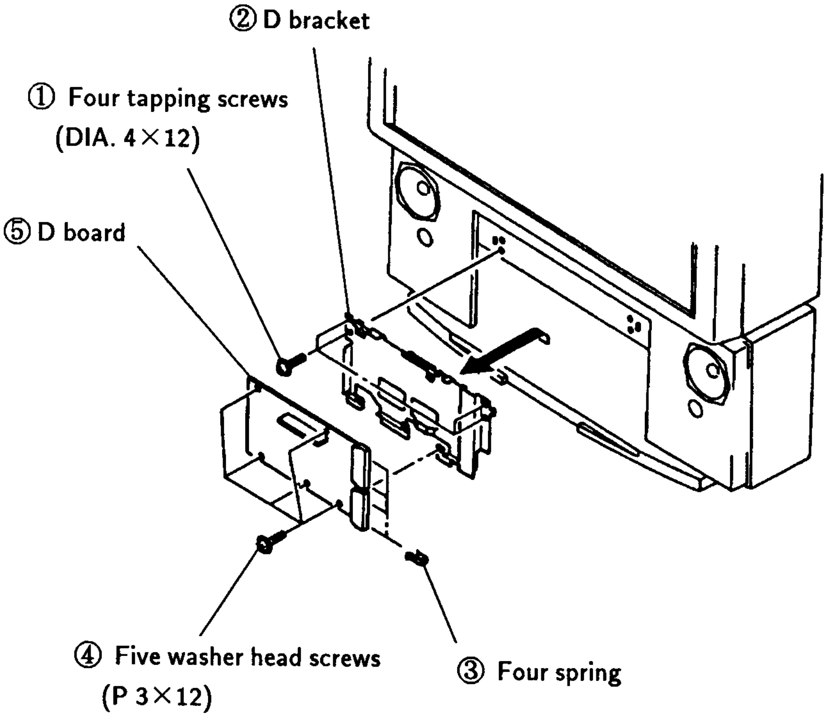
SECTION 2

DISASSEMBLY

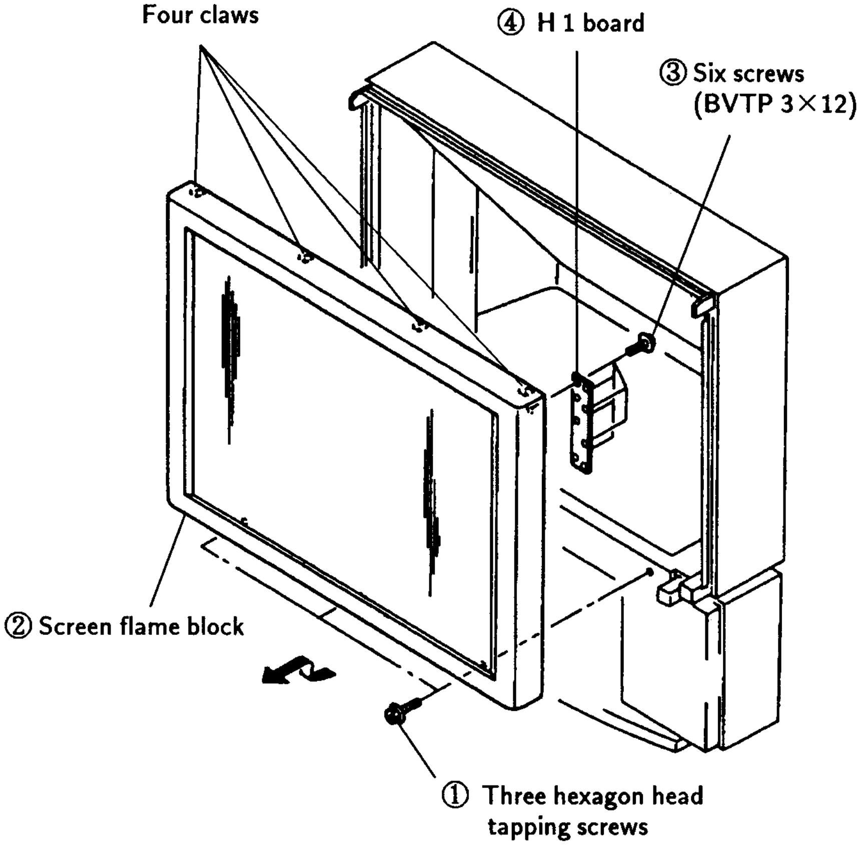
2-1. H 2 BOARD REMOVAL


① Speaker grille (L)
⑧ Seven tapping screws (DIA. 4×12)
⑨ H 2 board
⑤ Front escutcheon
④ Two tapping screws (DIA. 4×12)
⑦ Control panel
③ Two hexagon head tapping screws
⑥ Four hexagon head tapping screws
② Speaker grille (R)

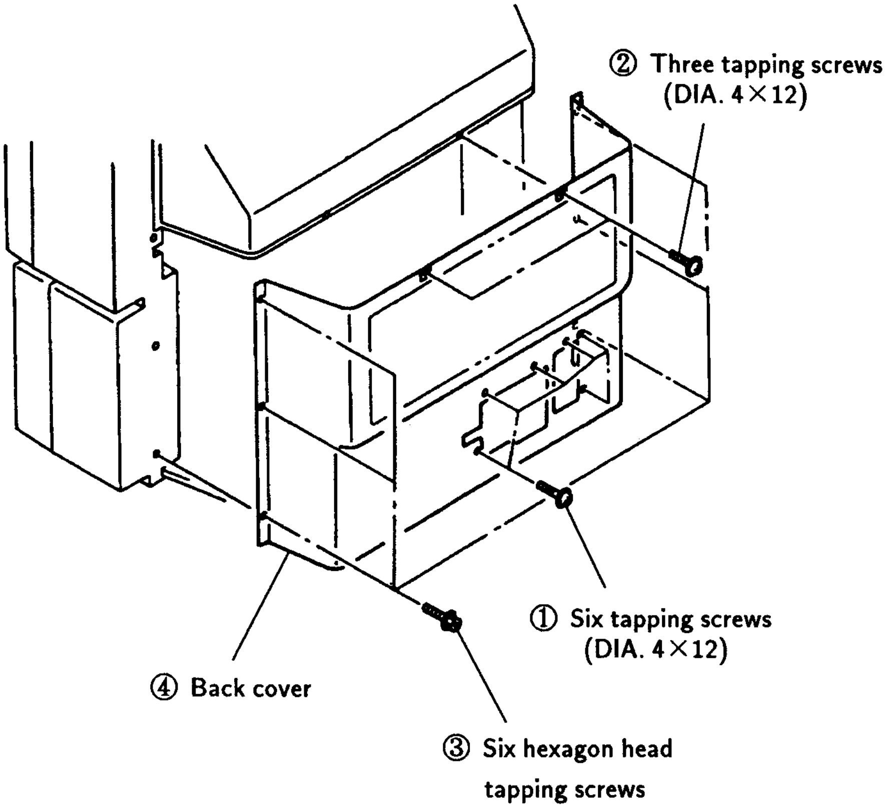
2-2. D BOARD REMOVAL


② D bracket
① Four tapping screws (DIA. 4×12)
⑤ D board
④ Five washer head screws (P 3×12)
③ Four spring

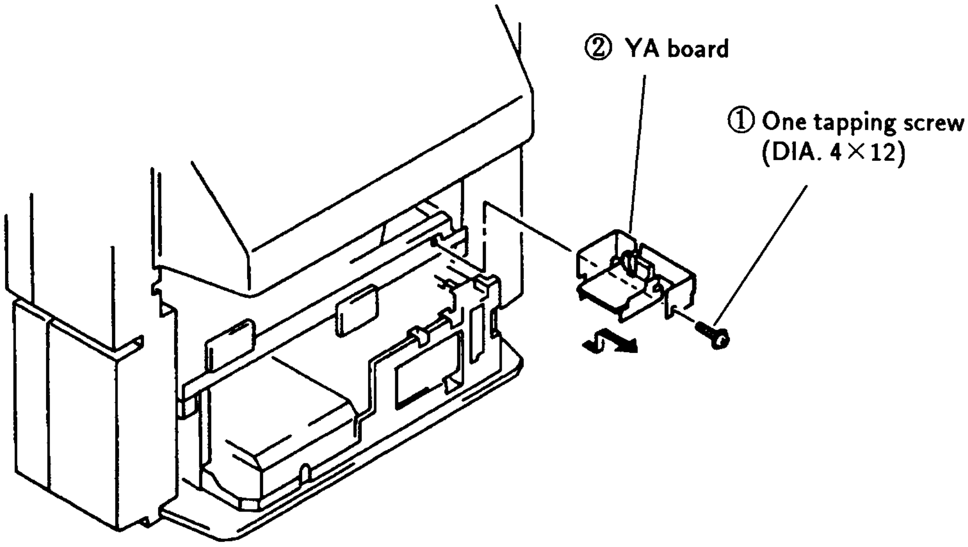
2-3. H 1 BOARD REMOVAL


Four claws
④ H 1 board
③ Six screws
(BVTP 3×12)
② Screen flame block
① Three hexagon head
tapping screws

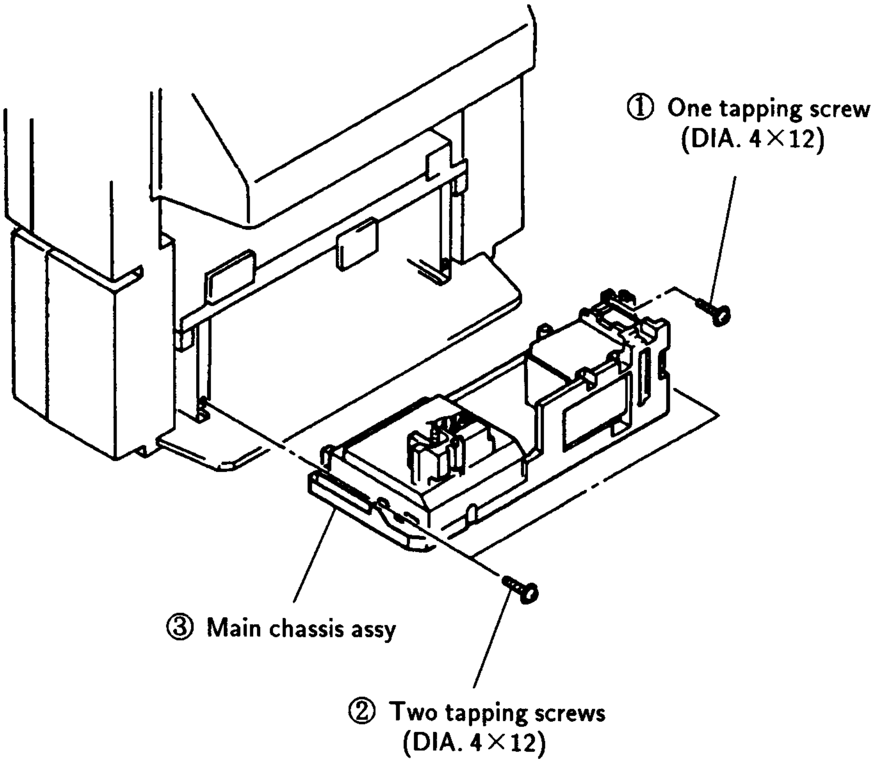
2-4. BACK COVER REMOVAL


② Three tapping screws
(DIA. 4×12)
① Six tapping screws
(DIA. 4×12)
④ Back cover
③ Six hexagon head
tapping screws

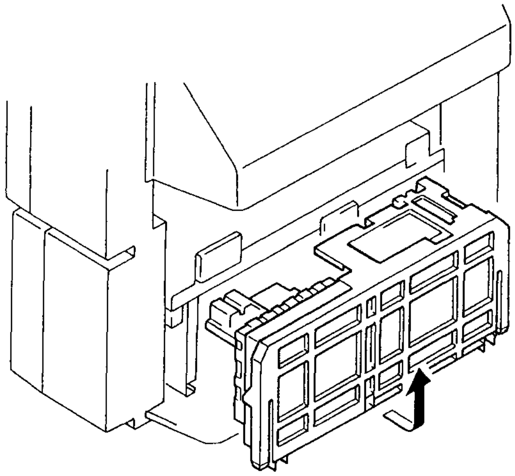
2-5. YA BOARD REMOVAL


② YA board
① One tapping screw
(DIA. 4×12)

2-6. MAIN CHASSIS ASSY REMOVAL


① One tapping screw
(DIA. 4×12)
③ Main chassis assy
② Two tapping screws
(DIA. 4×12)

2-7. SERVICE POSITION



NOTES INSERTED IN SERVICE POSITION SECTION

Service Position Procedure

(1) Remove the path locks where the harness comes into. (MAIN bracket, G shield)

(2) Remove the following connectors before removing the main bracket.

* HV grounding lead, G shield grounding lead, uT35 grounding lead (uT board), V-2 connector (V board).

(3) Remove the main bracket. (Take care as the connector leads linking to the C and Z boards are considerably short.)

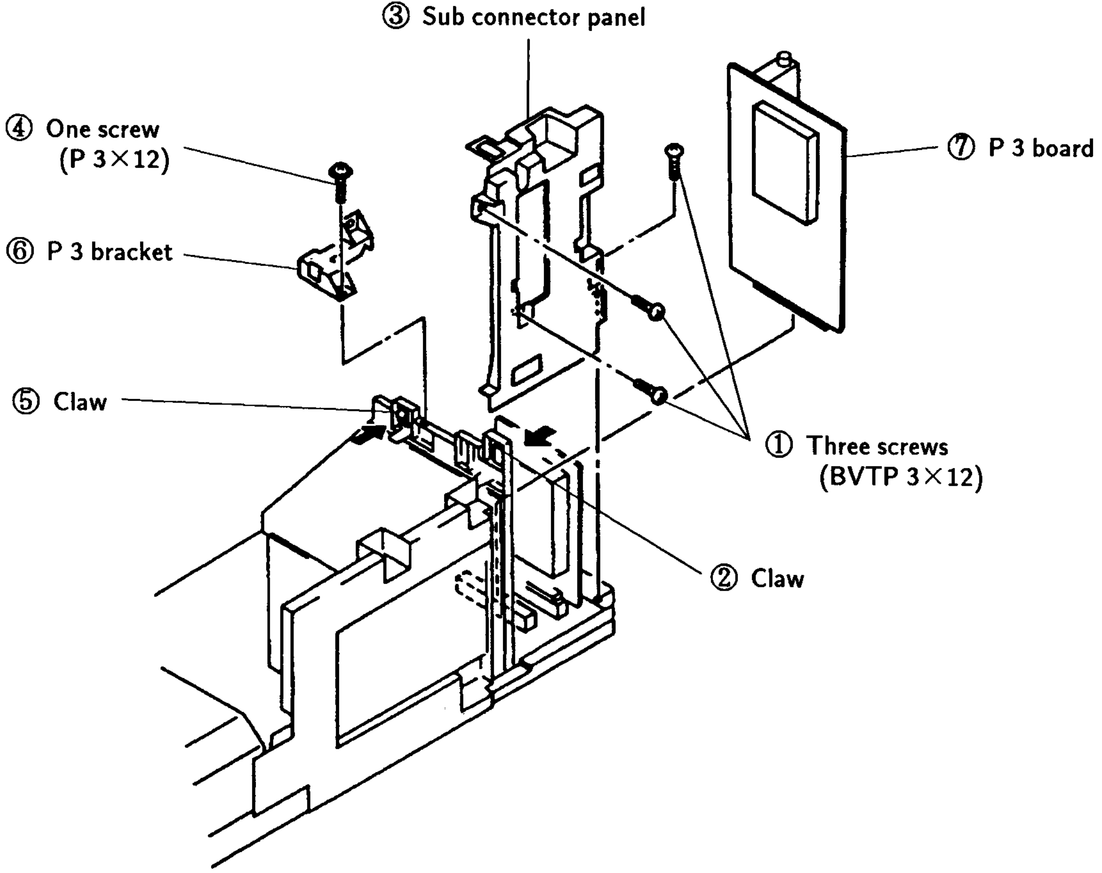
(4) When pulling out the main bracket with power ON, be sure to connect the connectors removed.

* HV grounding lead, G shield grounding lead, uT-35 grounding lead (uT board)

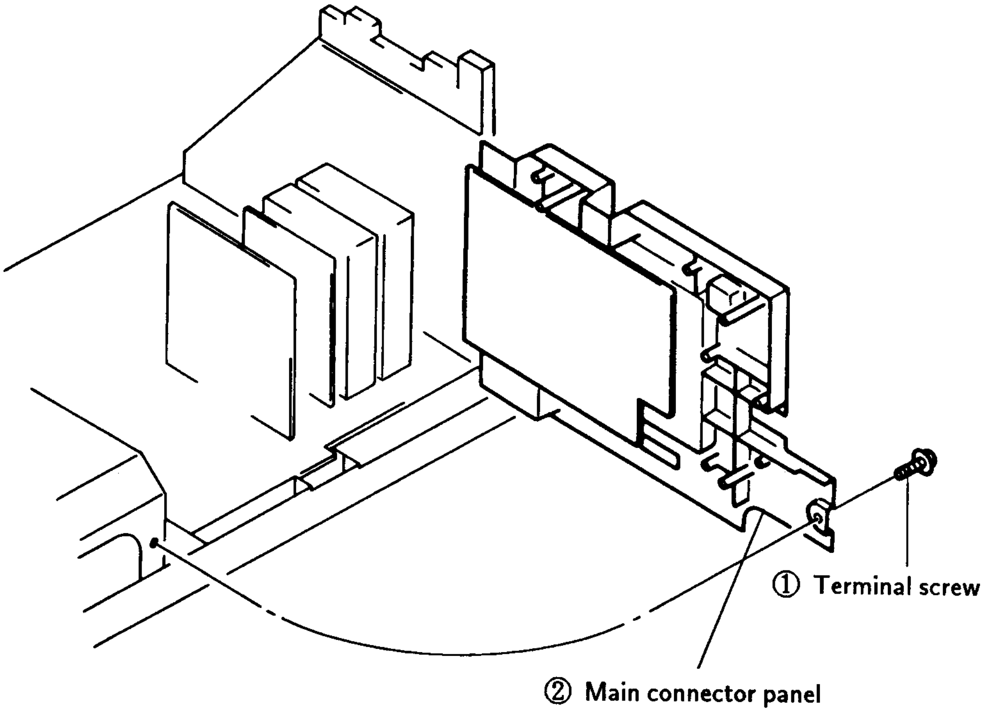
In case that grounding lead (Black) of HV Block is not connected with chassis grounding, it causes arcing of CRT and it is dangerous.

Be sure to connect grounding lead of HV Block with chassis grounding.

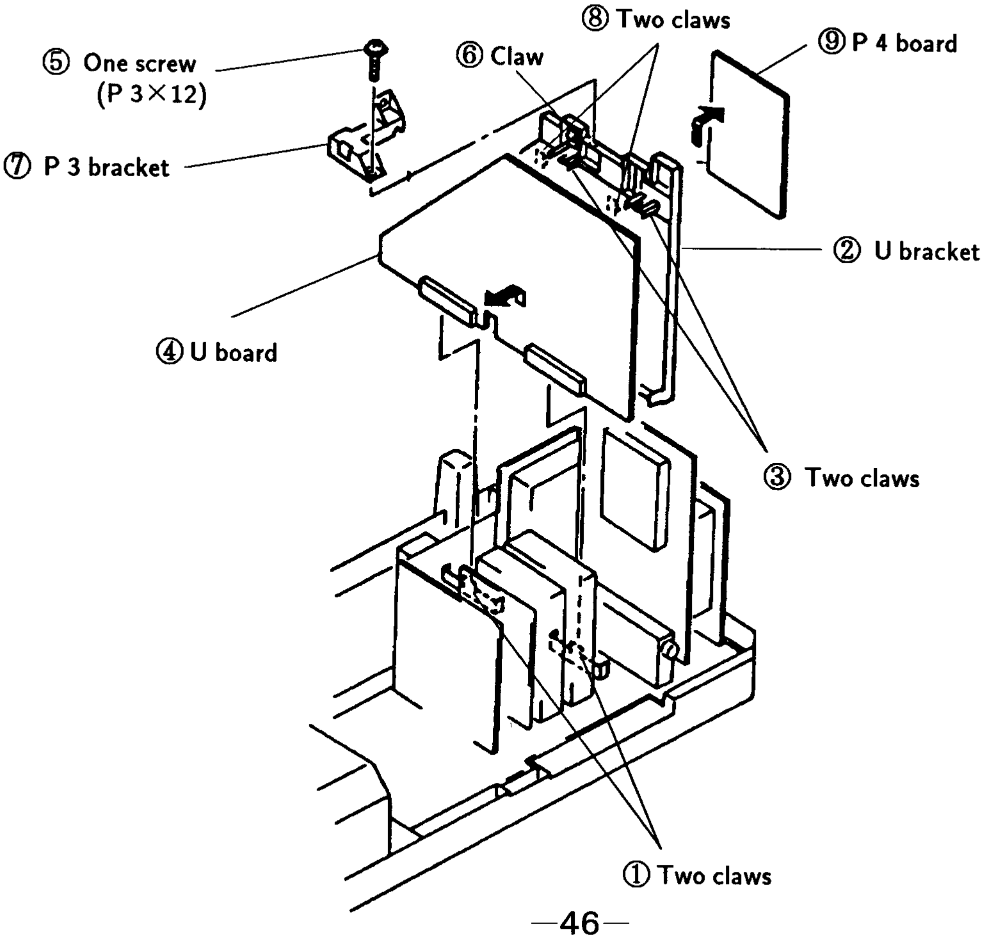
2-8. P3 BOARD REMOVAL


③ Sub connector panel
④ One screw (P 3×12)
⑥ P 3 bracket
⑦ P 3 board
⑤ Claw
① Three screws (BVTP 3×12)
② Claw

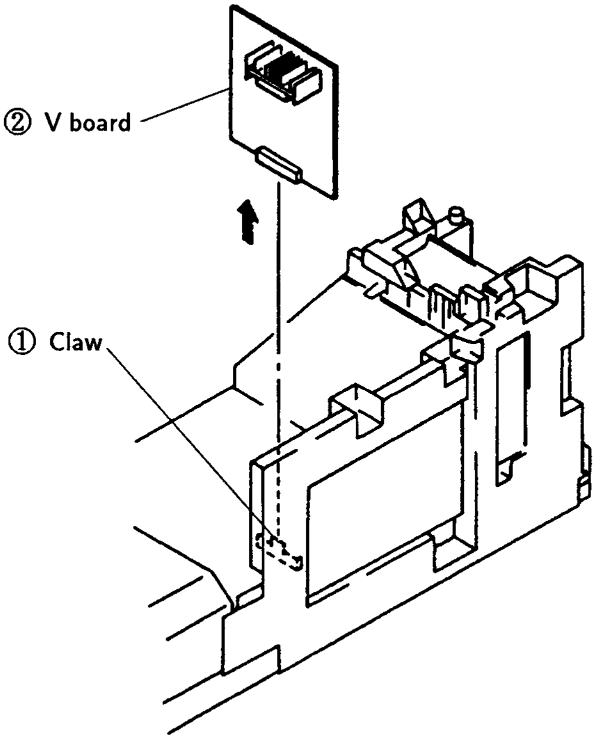
2-9. MAIN CONNECTOR PANEL REMOVAL


① Terminal screw
② Main connector panel

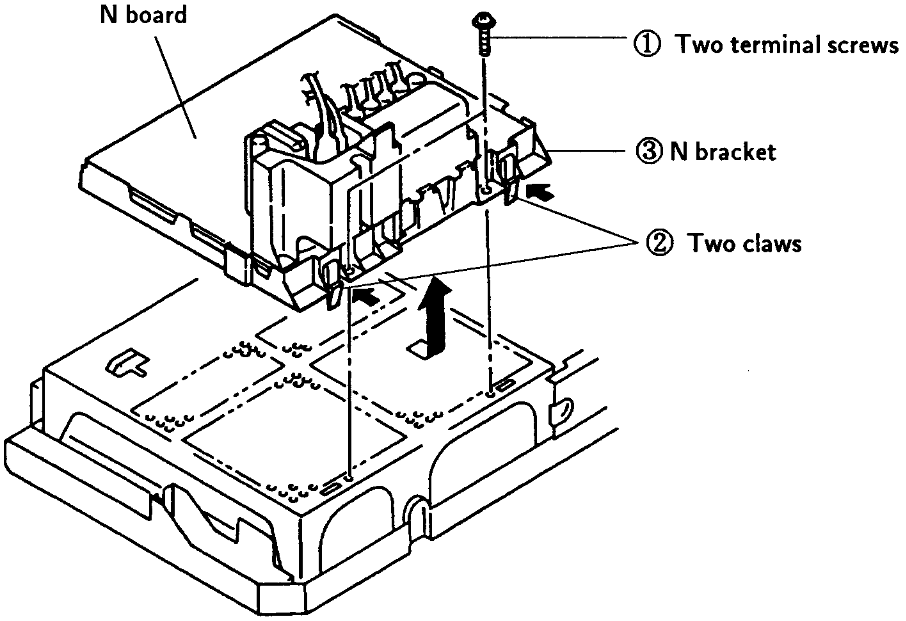
2-10. U AND P 4 BOARDS REMOVAL


⑤ One screw
(P 3×12)
⑥ Claw
⑧ Two claws
⑨ P 4 board
⑦ P 3 bracket
② U bracket
④ U board
③ Two claws
① Two claws

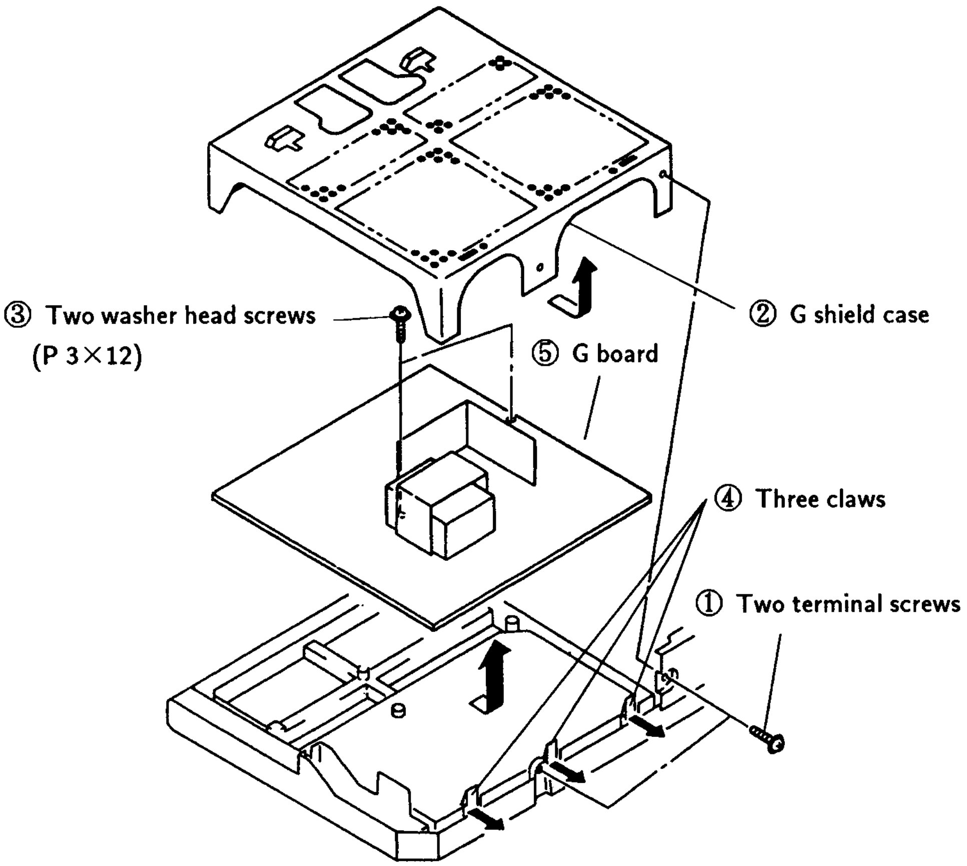
2-11. V BOARD REMOVAL


② V board
① Claw

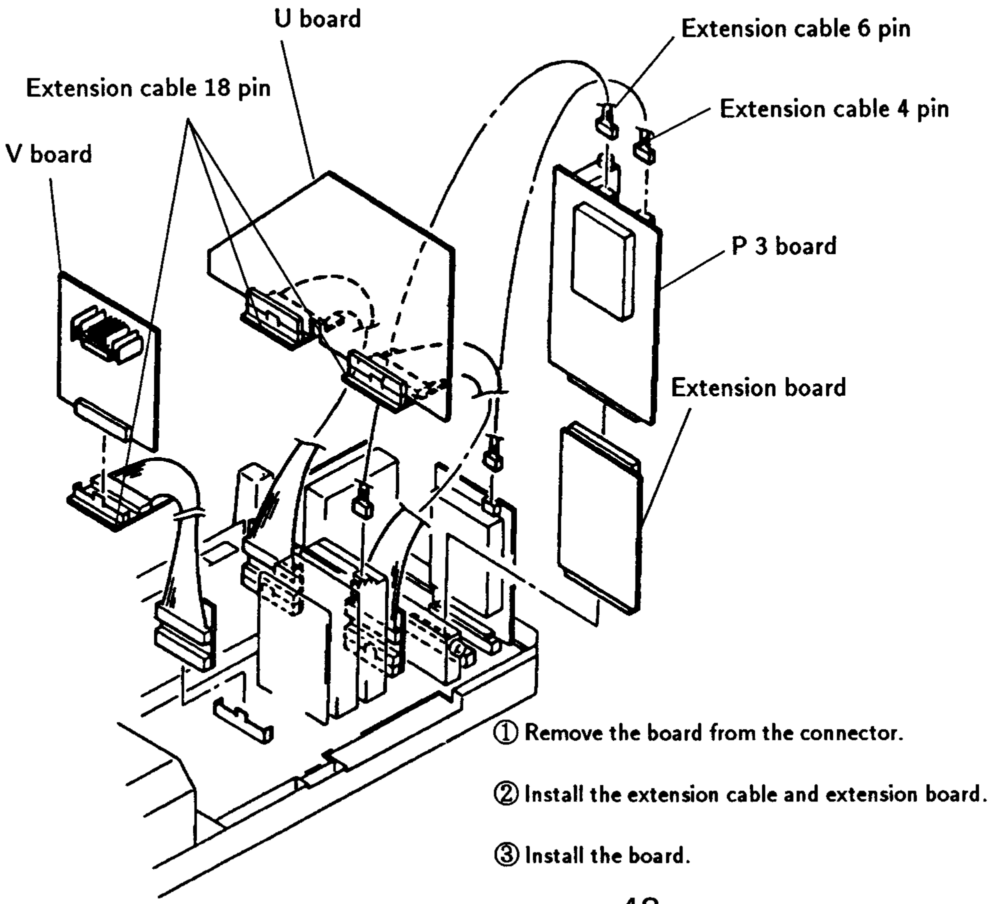
2-12. N BRACKET REMOVAL


N board
① Two terminal screws
③ N bracket
② Two claws

2-13. G BOARD REMOVAL


③ Two washer head screws
(P 3×12)
② G shield case
⑤ G board
④ Three claws
① Two terminal screws

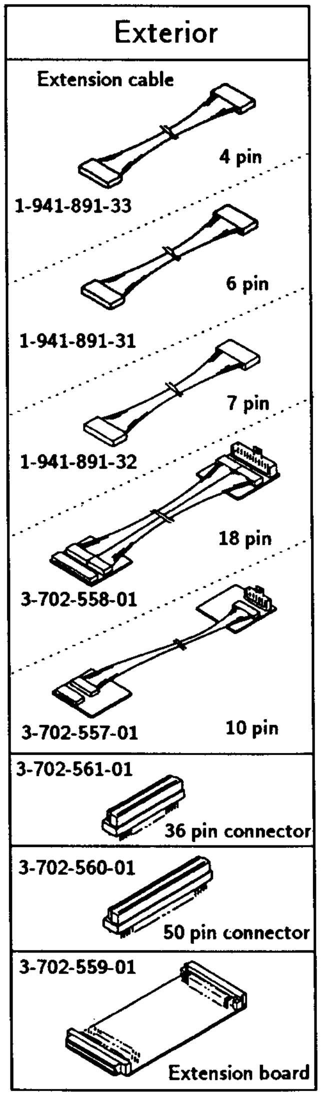
2-14-1. CONNECTOR CABLE


U board
Extension cable 18 pin
V board
Extension cable 6 pin
Extension cable 4 pin
P 3 board
Extension board

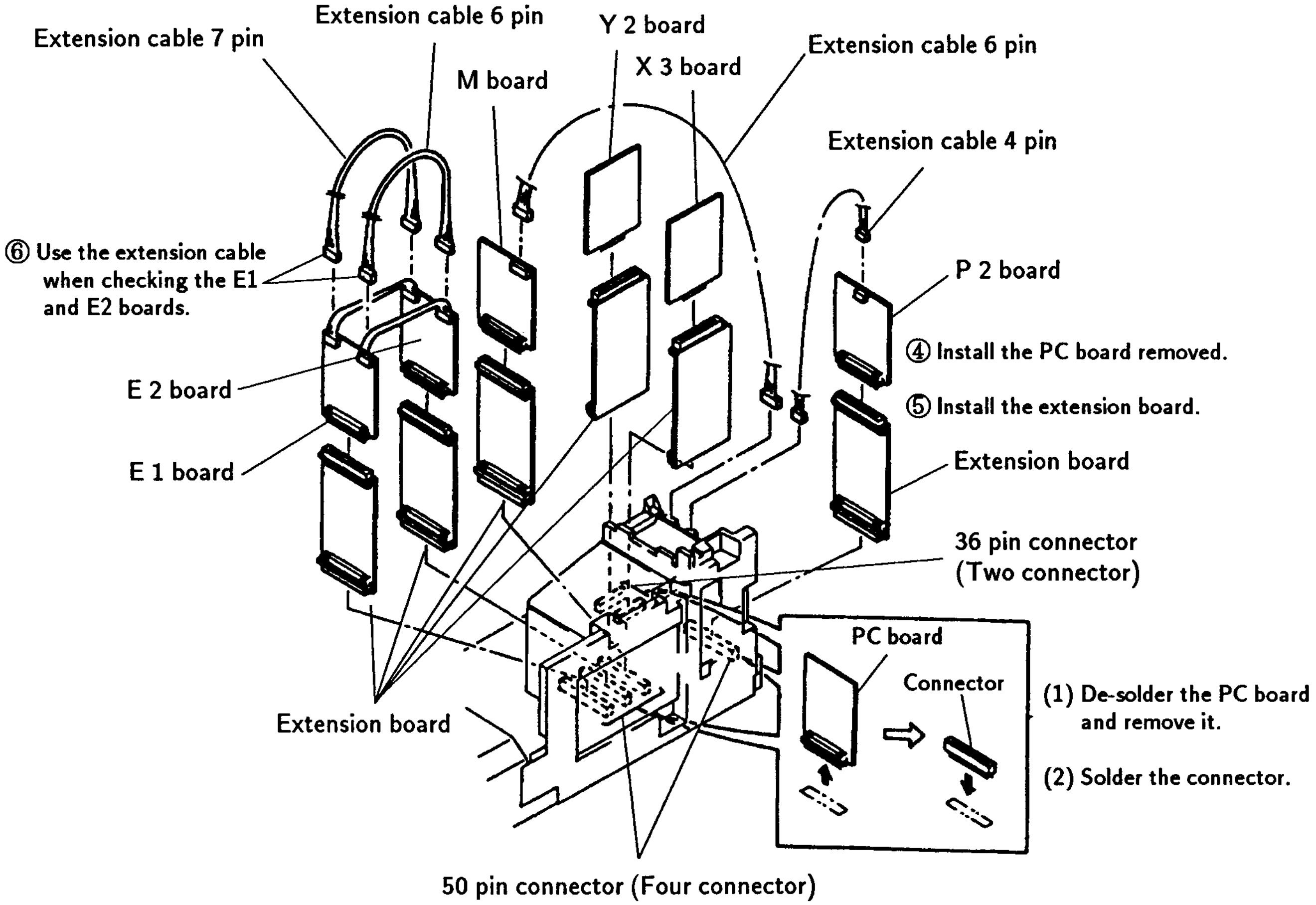
① Remove the board from the connector.

② Install the extension cable and extension board.

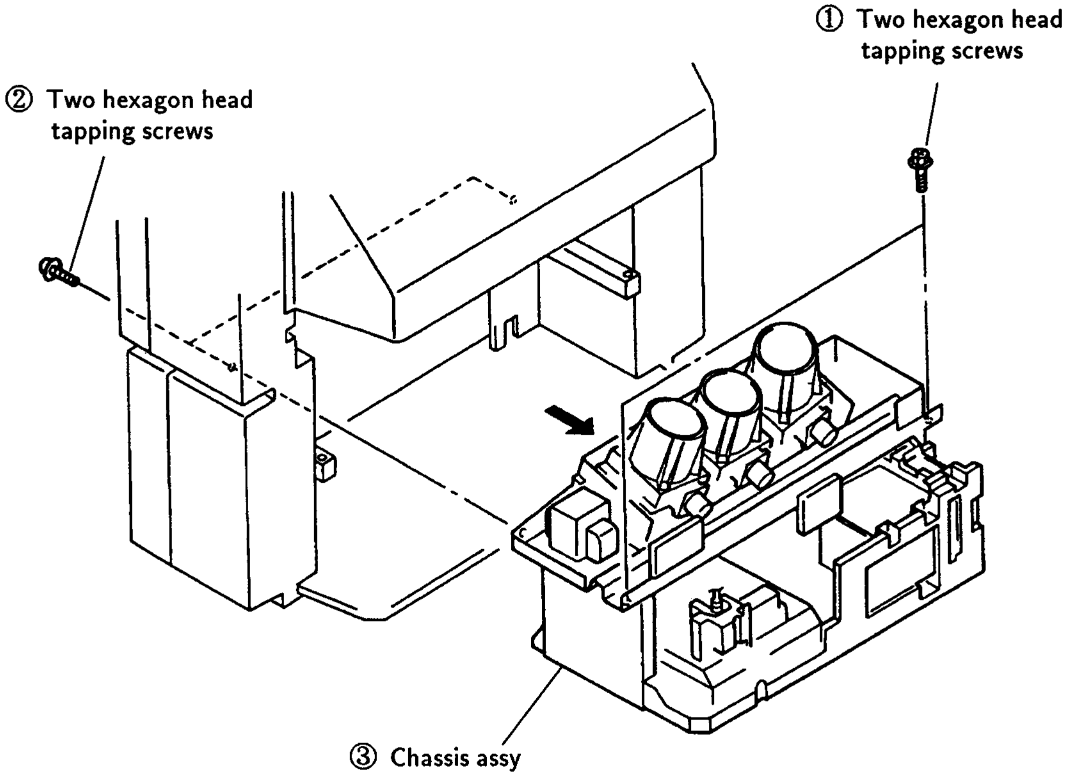
③ Install the board.


Exterior
Extension cable
4 pin
1-941-891-33
6 pin
1-941-891-31
7 pin
1-941-891-32
18 pin
3-702-558-01
3-702-557-01
10 pin
3-702-561-01
36 pin connector
3-702-560-01
50 pin connector
3-702-559-01
Extension board

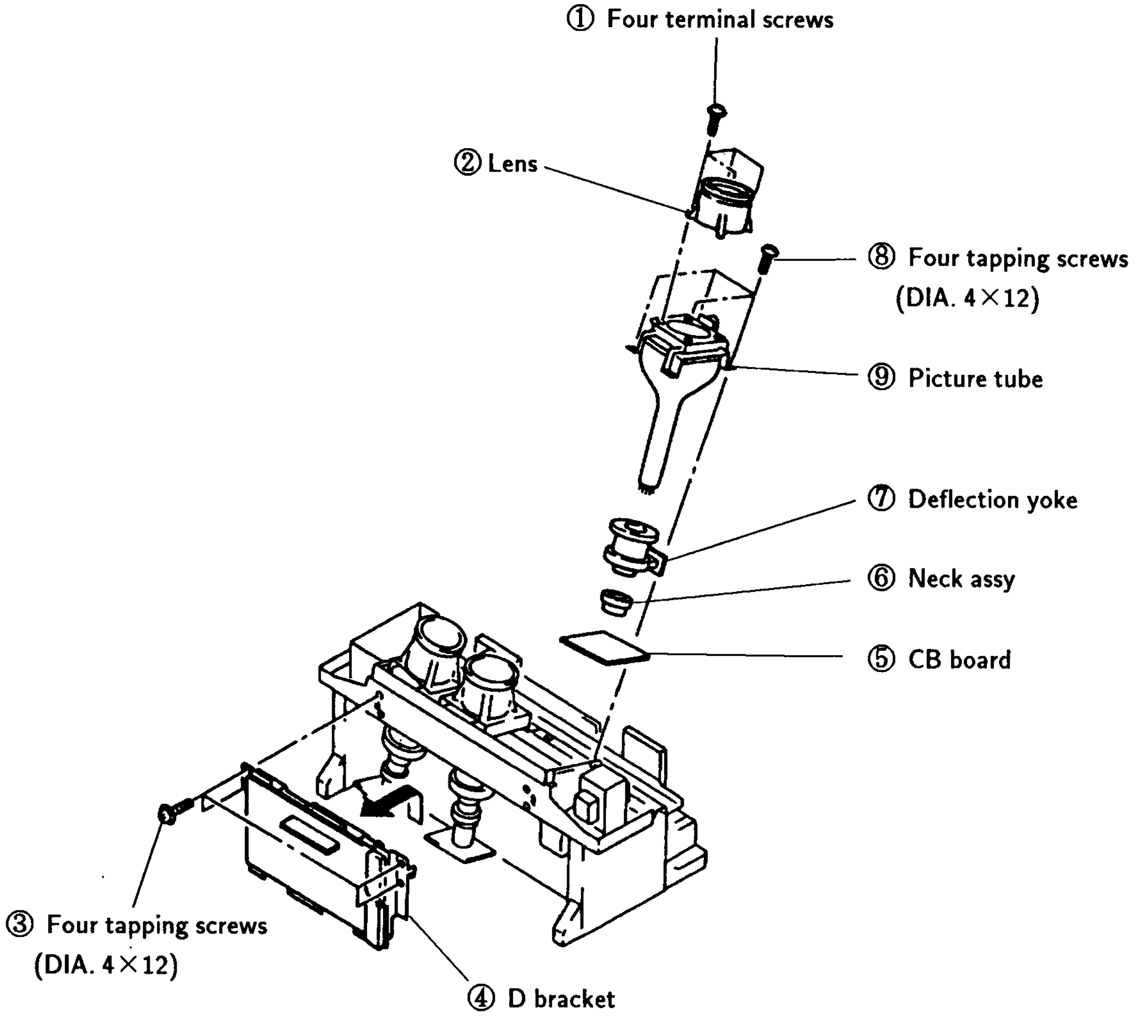
2-14-2. CONNECTOR CABLE


Extension cable 7 pin
Extension cable 6 pin
M board
Y 2 board
X 3 board
Extension cable 6 pin
Extension cable 4 pin
⑥ Use the extension cable when checking the E1 and E2 boards.
P 2 board
④ Install the PC board removed.
⑤ Install the extension board.
E 2 board
E 1 board
Extension board
36 pin connector (Two connector)
PC board
Connector
(1) De-solder the PC board and remove it.
(2) Solder the connector.
Extension board
50 pin connector (Four connector)

2-15. CHASSIS ASSY REMOVAL

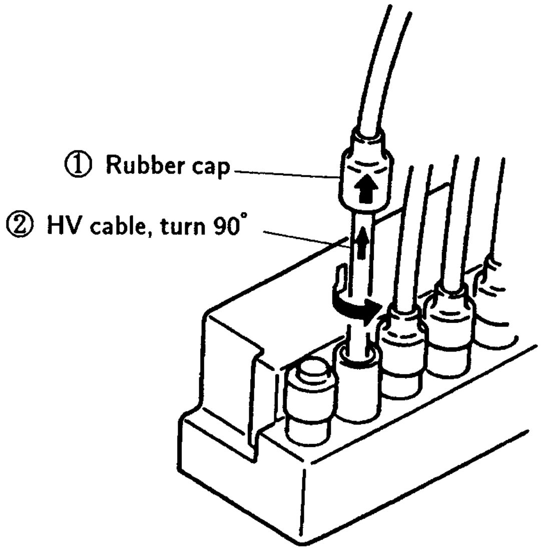

① Two hexagon head tapping screws
② Two hexagon head tapping screws
③ Chassis assy

2-16. PICTURE TUBE REMOVAL

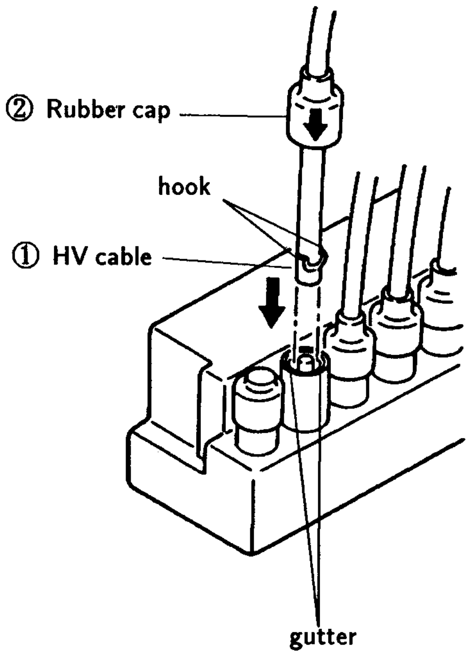

① Four terminal screws
② Lens
⑧ Four tapping screws
(DIA. 4×12)
⑨ Picture tube
⑦ Deflection yoke
⑥ Neck assy
⑤ CB board
③ Four tapping screws
(DIA. 4×12)
④ D bracket

2-17. HIGH-VOLTAGE CABLE INSTALLATION AND REMOVAL

(1) Remover


① Rubber cap
② HV cable, turn 90°

(2) Installation

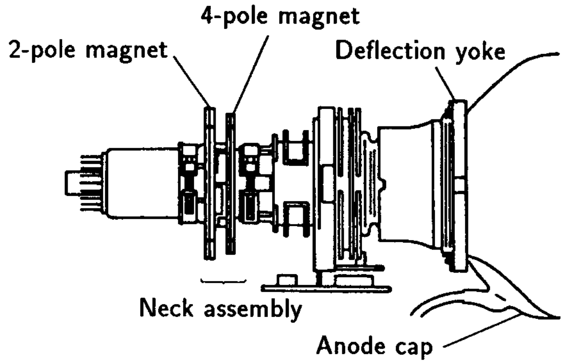

② Rubber cap
hook
① HV cable
gutter

SECTION 3

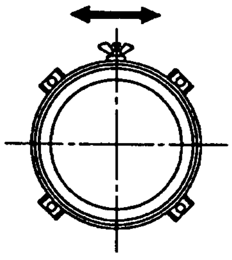
SETUP ADJUSTMENTS

3-1. FOCUS LENS ADJUSTMENTS

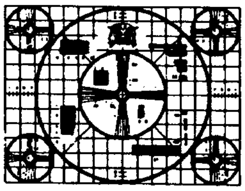
1. Set the D-board registration variable resistor (VR) and the position VR (CENTER VR) to mechanical.
2. Set the centering magnets (for red, green, and blue) to 0 as shown in the figure.

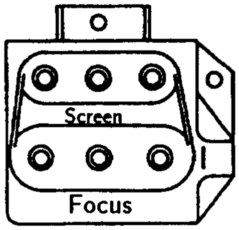


3. Input monoscope signal. Set 50% BRIGHTNESS and minimum PICTURE. Make rough adjustment so that 10IRE of the monoscope signal becomes faintly luminous.
4. Set PICTURE and BRIGHTNESS maximum. Press the commander menu button. Select CONVERGENCE to display test signal.
5. Enter service mode. Select R OFF of SERVICE MODE to cut off red output.
   Similarly, select B OFF to cut off blue output.
6. Turn the green lens to eliminate flare of the test signal.



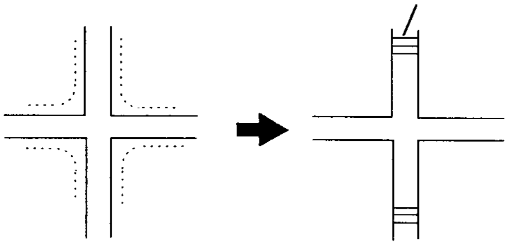
(Lens)



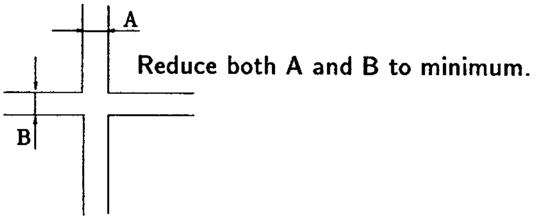


(Focus block)

Verify that scanning lines are seen.



7. Turn the green focus VR in the focus block to adjust green focus to reduce both A and B of the test signal to minimum.



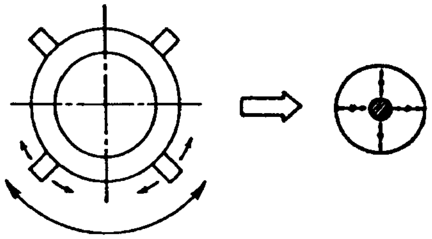
8. Repeat avobe 7. Couple of times to improve tracking and obtain an optimum lens focus. Then tighten the lens screws.

3-2. DEFLECTION YOKE POSITION ADJUSTMENTS

1. Input monoscope signal.
2. Enter service mode. Select R OFF of SERVICE MODE to cut off red output.
   Similarly, select B OFF to cut off blue output.
3. Loosen the deflection yoke (DY) fitting screws. Tilt the DY to obtain the best horizontal and vertical monoscope patterns.
4. After adjustment, press the DY onto the cathode ray tube (CRT) funnel and tighten the screws.
5. Also adjust DY positions for red and blue outputs in the same way.

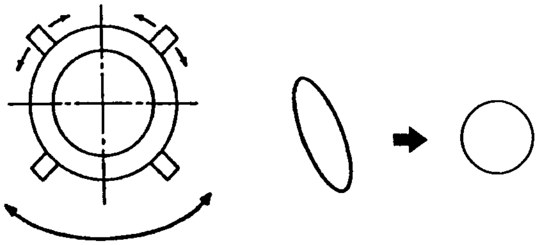
3-3. 2-POLE MAGNET ADJUSTMENT

1. Input dot signal.
2. Enter service mode. Select R OFF of SERVICE MODE to cut off red output.
   Similarly, select B OFF to cut off blue output.
3. Set PICTURE to maximum. Turn the green focus variable resistor (VR) in the focus block counterclockwise to brighten the point in the dot.
4. Adjust the 2-pole magnet to position the bright point at the center of the dot.
5. Adjust the red and blue dots in the same way.



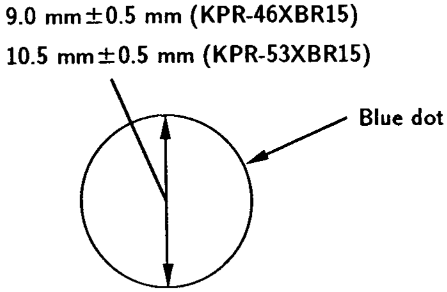
3-4. 4-POLE MAGNET ADJUSTMENT

1. Input dot signal.
2. Enter service mode. Select R OFF of SERVICE MODE to cut off red output.
   Similarly, select B OFF to cut off blue output.
3. Set PICTURE to maximum. Turn the green focus variable resistor (VR) in the focus block clockwise until the dot diameter becomes 15 mm to 20 mm.
4. Adjust the 2-pole magnet to make the dot perfectly round.
5. Adjust the red and blue dot in the same way.



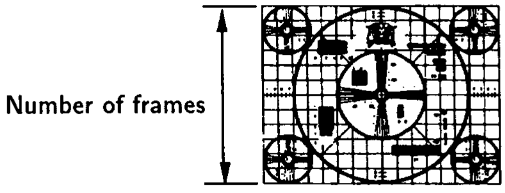
3-5. DE-FOCUS ADJUSTMENT (BLUE)

1. Input dot signal.
2. Turn the blue focus variable resistor (VR) in the focus block counter clock wise so that the diameter of the blue dot becomes 9.0±0.5mm (KPR-46XBR 15), 10.5±0.5mm (KPR-53XBR15).

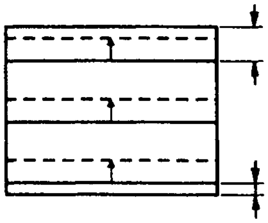


3-6. GREEN PICTURE ADJUSTMENTS

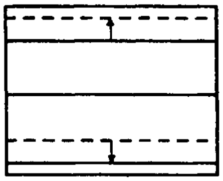
1. Input monoscope signal.
2. Enter service mode. Select R OFF of SERVICE MODE to cut off red output.
   Similarly, select B OFF to cut off blue output.
3. Turn RV913 and RV960, the vertical green linearity variable resistors (V.G LIN VRs) on the D-board, to obtain an optimum vertical linearity. Then turn RV911, the vertical green amplitube variable resistor (V.G SIZE VR) to set vertical amplitude to 11.7 flames.
   Note: The vertical position indicator of the monoscope signal must be positioned at the center by adjusting RV905, the vertical green center position variable resistor (V.G CENT VR) in advance.



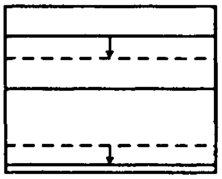
Monoscope signal



RV905 V.G CENT
(vertical position)

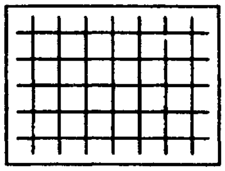


RV911 V.G SIZE
(vertical amplitude)



RV913

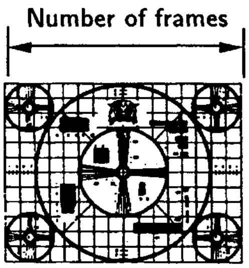
5. Verify that the horizontal lines on the top and bottom of cross-hatched area of the monoscope signal are horizontal and linear.



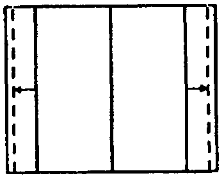
6. Turn RV916, RV964 and RV969, the horizontal green linearity variable resistors (H.G LIN VRs) on the D-board, to obtain an optimum horizontal linearity.

   Then turn RV908, the horizontal green amplitude variable resistor (H.G SIZE VR) to set horizontal amplitude to 15.6 frames.

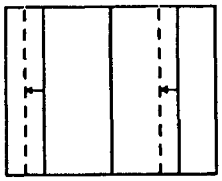
   Note: The horizontal position indicator of the monoscope signal must be positioned at the center by adjusting RV902, the horizontal green center position variable resistor (V.G CENT VR) in advance.



Monoscope signal



RV908 H.G SIZE
(horizontal position)



RV916 H.G LIN
(horizontal linearity)

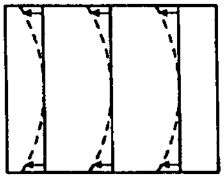
7. Input cross hatch signal.

   Turn vertical green (V.G) and horizontal green (H.G) variable resistors (VRs) and make adjustments according to the following steps :

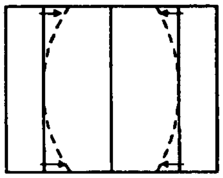
(Adjustment procedure)

1. [BOW] → [SKEW] → [CENT (center position)]
2. [PIN (pin warp)] → [SUB BOW] → [BOW]
3. [KEYS (trapezoid)] → [SUB SKEW] → [SKEW]
4. [M.WAVE (middle sine wave warp)] → [WAVE-A (upper and lower sine wave warp)] → [WAVE-U (upper sine wave warp)]
   ※ For vertical (V) only.
5. [V-M.PIN (vertical middle pin warp)] → [V/WING (vertical wing warp)]
   ※ For vertical (V) only.
6. [H-M.PIN (horizontal middle pin warp)]
   ※ For horizontal (H) only.

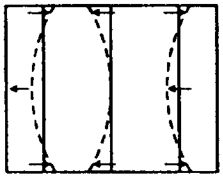
(Dot motion)



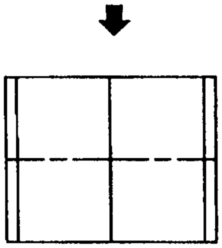
RV932 H.G BOW
(horizontal green bow)



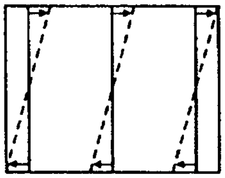
RV941 H.G PIN
(horizontal green pin warp)



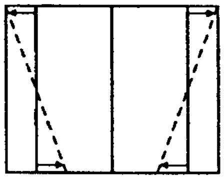
RV950 H.G SUB BOW
(horizontal green sub bow)



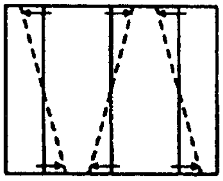
V.G BOW······················RV935
V.G PIN··························RV938
V.G SUB BOW···············RV953



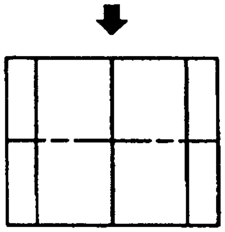
RV920 H.G SKEW
(horizontal green skew)



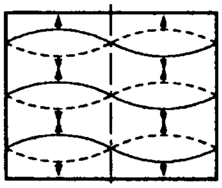
RV925 H.G KEYS
(horizontal green trapezoid)



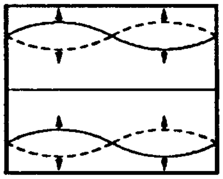
RV944 H.G SUB SKEW
(horizontal green sub skew)



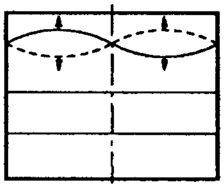
V.G SKEW······················RV923
V.G KEYS······················RV929
V.G SUB SKEW···············RV947



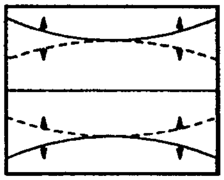
RV962 V-M-WAVE
(vertical middle sine wave warp)



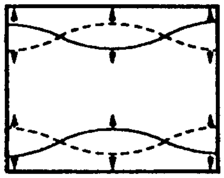
RV975 V-WAVE-A
(vertical upper and lower sine wave warp)



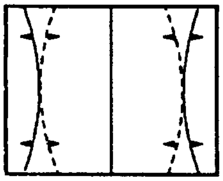
RV978 V-WAVE-U
(vertical upper sine wave warp)



RV980 V-M. PIN
(vertical middle pin warp)
※ Common in red, green, and blue



RV957 V/WING
(wing warp)
※ Common in red, green, and blue



RV956 H/M. PIN
(vertical middle pin warp)

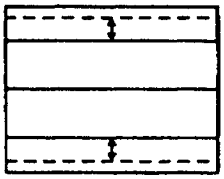
3-7. GREEN AND RED REGISTRATION ADJUSTMENTS

1. Input cross hatch signal.
2. Enter service mode. Select B OFF of SERVICE MODE to cut off blue output.
3. Turn the vertical red (V.R) and horizontal red (H. R) variable resistors (VRs) to adjust red picture convergence in relation to green picture according to the following steps :

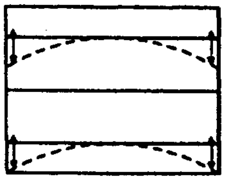
(Adjustment procedure)

1. [LIN (linearity)] → [SIZE (amplitude)] → [CENT (center position)] →
2. [BOW] → [SKEW] → [CENT (center position)]
3. [PIN (pin warp)] → [SUB BOW] → [BOW] [H/M. PIN (horizontal middle pin warp)]
4. [KEYS (trapezoid)] → [SUB SKEW] → [SKEW]
5. [M.WAVE (middle sine wave warp)] → [WAVE-A (upper and lower sine wave warp)] → [WAVE-U (upper sine wave warp)]

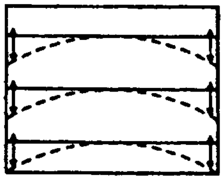
(Dot motion)



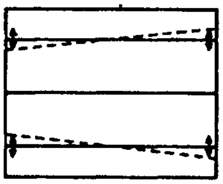
RV912 V.B SIZE
(vertical red amplitude)



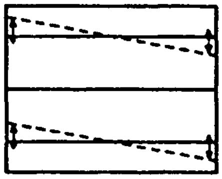
RV952 V.R SUB BOW
(vertical red sub bow)



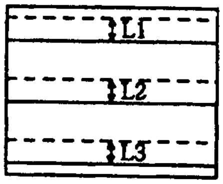
RV943 V.R BOW
(vertical red bow)



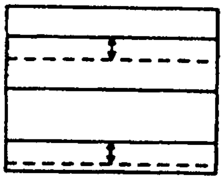
RV928 V.R KEYS
(vertical red trapezoid)



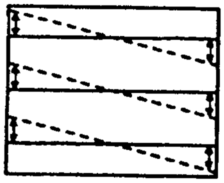
RV946 V.R SUB SKEW
(vertical red sub skew)



RV904 V.R CENT
(vertical red center position)



RV917 V.R LIN
(vertical red linearity)



RV922 V.R SKEW
(vertical red skew)

H.R LIN	RV915
H.R SIZE	RV907
H.R CENT	RV901
H.R BOW	RV931
H.R SKEW	RV919
H.R PIN	RV940
H.R KEYS	RV926
H.R SUB BOW	RV949
H.R SUB SKEW	RV943
V-M-WAVE	RV973
V-WAVE-A	RV976
V-WAVE-U	RV979
V-M.PIN	RV980
V/WING	RV957
H/M.PIN	RV956

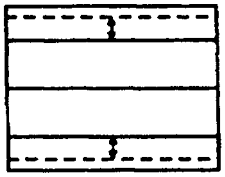
3-8. GREEN AND BLUE REGISTRATION ADJUSTMENTS

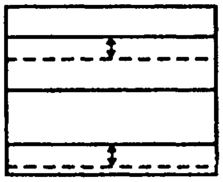
1. Input cross hatch signal.
2. Enter service mode. Select R OFF of SERVICE MODE to cut off red output.
3. Turn the vertical blue (V.B) and horizontal blue (H.B) variable resistors (VRs) to adjust blue picture convergence in relation to green picture according to the following steps :

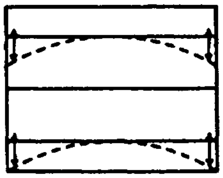
(Adjustment procedure)

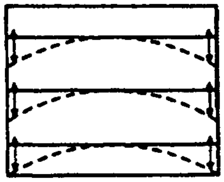
1. [LIN (linearity)] → [SIZE (amplitude)] → [CENT (center position)] →
2. [BOW] → [SKEW] → [CENT (center position)]
3. [PIN (pin warp)] → [SUB BOW] → [BOW] [H/M. PIN (horizontal middle pin warp)]
4. [KEYS (trapezoid)] → [SUB SKEW] → [SKEW]
5. [M.WAVE (middle sine wave warp)] → [WAVE-A (upper and lower sine wave warp)] → [WAVE-U (upper sine wave warp)] →

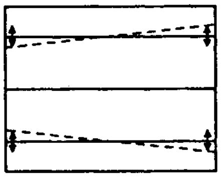
(Dot motion)

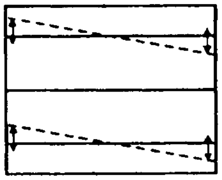

RV912 V.B SIZE
(vertical blue amplitude)

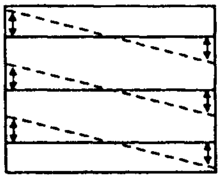

RV918 V.B LIN
(vertical blue linearity)

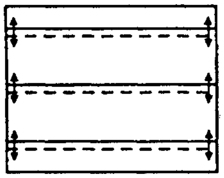

RV954 V.B SUB BOW
(horizontal blue sub bow)

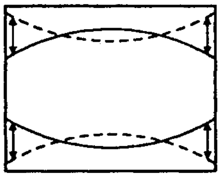

RV936 V.B BOW
(vertical blue bow)

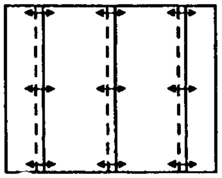

RV930 V.B KEYS
(vertical blue trapezoid)

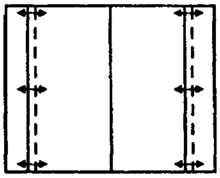

RV948 V.B SUB SKEW
(vertical blue sub skew)

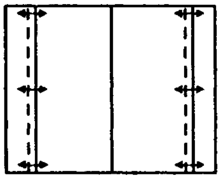

RV924 V.B SKEW
(vertical blue skew)

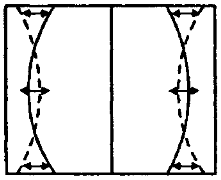

RV906 V.B CENT
(vertical blue center position)

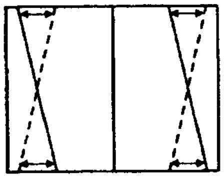

RV939 V.B PIN
(vertical blue pin warp)


RV903 H.B CENT
(vertical blue center position)

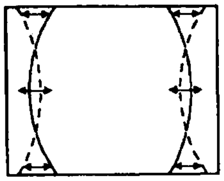

RV909 H.B SIZE
(horizontal blue amplitude)


RV914 H.B LIN
(horizontal blue linearity)

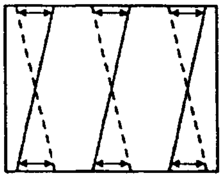

RV942 H.B PIN
(horizontal blue pin warp)



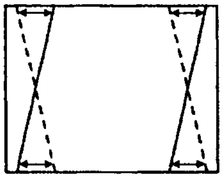
RV954 H.B SUB SKEW
(horizontal blue sub skew)



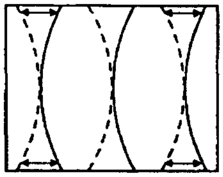
RV951 H.B SUB BLOW
(horizontal blue sub bow)



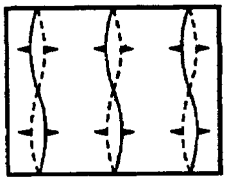
RV921 H.B SKEW
(horizontal blue skew)



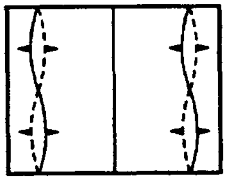
RV927 H.B KEYS
(horizontal blue trapezoid)



RV933 H.B BOW
(horizontal blue bow)



RV981
※ Common in red, green, and blue



RV982
※ Common in red, green, and blue

H/M PIN····················RV958
M.WAVE····················RV961
WAVE-A····················RV974
WAVE-U····················RV977

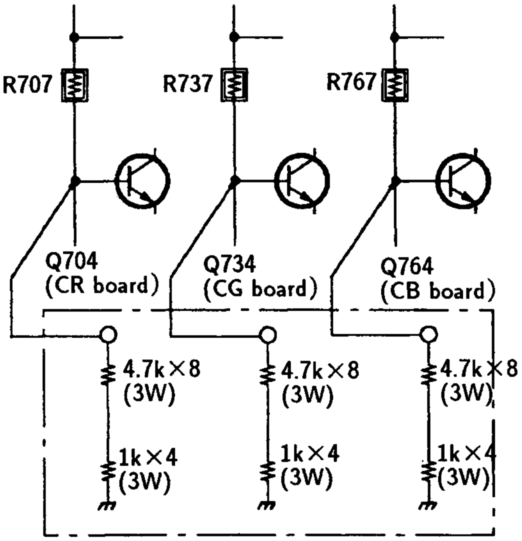
3-9. REGISTRATION ADJUSTMENTS

1. Out put red, blue, and green.
2. Out put cross hatch and monoscope signals to check registration. Also check focus.

3-10. WHITE BALANCE ADJUSTMENTS

1) Screen adjustment

1. Input white signal.
2. Remove connectors CR-15, CG-16, and CB-17.
3. Fit jigs between the ground and R707, R737, and R767.



※ Resistors in each jig are connected serial.

4. Turn the RGB (red, green, and blue) screen variable resistors in the focus block to make the flyback line faint. Stop before the line completely disappears.
5. Insert connectors CR-15, CG-16, and CB-17.

2) White balance adjustments (SBRT, GAMP, BAMP, GCUT, BCUT)

1. Input monoscope signal and enter service mode.
2. Select the picture quality adjustment from the menu and set PICTURE minimum. Set the SERVICE MODE.
3. Use the commander to adjust SBRT so that 10 IRE of the monoscope pattern becomes faintly luminous.
4. Input white signal.
5. Set PICTURE minimum. Adjust item GCUT and BCUT to obtain an optimum white balance.
6. Set PICTURE maximum. Adjust GAMP and BAMP to obtain an optimum white balance.
7. Repeat white balance adjustment alternating PICTURE setting at the minimum and maximum.

SECTION 4

SAFETY RELATED ADJUSTMENTS

4-1. SAFETY RELATED ADJUSTMENTS

When replacing the following components, make the HV REGULATOR adjustments (on the N board)

◪······HV block, IC803, IC805, D805, D807, C817, C818, C821, C836, C837, R824, R825, R827, R828, R834,R835, R836, R864, R865, R866, R902

When replacing the following components, make the HV HOLD DOWN adjustments (on the N board)

◪······HV block, IC803, IC804, Q804, D806, D808, C809, C819, C820, C822, C823, C850, R807, R826, R829, R832, R833, R837, R838, R839, R840, R841, R892, R893, R900, R901

When replacing the following components, make the BEAM CURRENT PROTECTOR adjustments (on the N board)

◪······① IC802, Q805, Q807, D811, D812,C810, C824, C825, C826, C827, C831, R810, R843, R844, R847, R848, R849, R850, R851, R852, R853, R854, R881

② IC804, Q804, Q808, D808, D809, C809, C828,C829, C830, C831, R807, R839, R840, R841,R847, R848, R849, R850, R851, R852, R855, R856, R857, R881

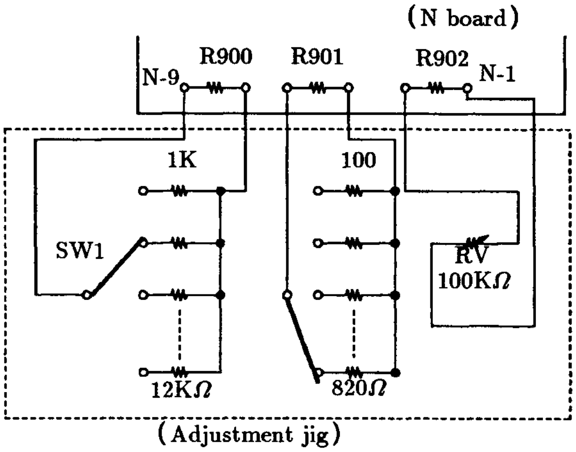
When replacing the following components, make the OVP CIRCUIT adjustments (on the G board)

◪······Q618, Q621, D628, C634, R639, R649, R652, R655, R656

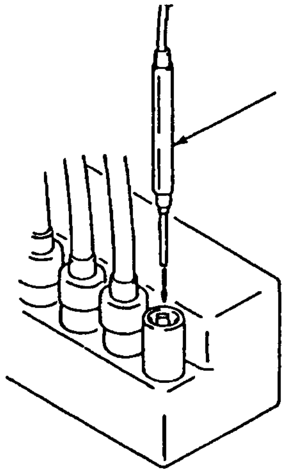
— Checking with static voltmeter —

HV HOLD DOWN ADJUSTMENTS (◪R900, R901)

1. Verify that the power switch is off.
2. Connect the HV hold down adjustment resistance jig to the N9 and N1 connectors on the N board.



3. Connect an external variable resistor (RV) to R 902 of the N board.
4. Remove the cap off from the unused terminal of the high voltage block. Connect a static voltmeter to the terminal.

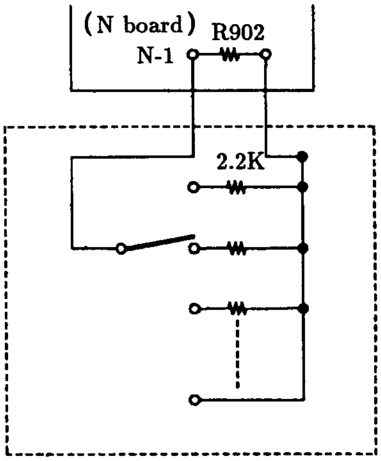


Remove high-voltage lead wire from the terminal and connect a digital multimeter there.

5. Receive 120 VAC power voltage and monoscope pattern signal. Maximize PICTURE and BRIGHTNESS.
6. Use the external variable resistor of the hold down adjustment jig to make the static voltmeter to read 33.50 ± 0.45KVDC.
7. Raise resistances with the jig until the HV hold down circuit is activated. Read the figures then, and mount resistance of the measured figures to R900 and R901.
   R900 : Must be 1KΩ to 12KΩ
   R901 : Must be Jw 100Ω to 820Ω
8. Turn on power again. Vary external variable resistance and confirm that the HV hold down circuit is activated at the reated value, 33.50± 0.45KV.

HV REGULATOR ADJUSTMENTS (⊠R902)

1. Connect the HV adjustment resistance jig to R 902 of the N board.



(Adjustment jig)

2. Remove the red anode lead wire foe the CRT tube from the high-voltage block and connect the static voltmeter instead.
3. Receive 120 VAC power voltage and monoscope pattern signal. Set PICTURE and BRIGHTNESS to the standard.
4. Turn on power. To adjust the resistance of R902 with the adjustment jig to read the rated value, 31.50±0.45KV.
5. Receive all-white signal. Set BRIGHTNESS to the standard. Maximize PICTURE. Confirm that the rated value, 31.50±0.45KV is read.
6. Cut off RGB by VP26, 27, 28 of the service commander. Verify that the rated value, 31.50± 0.45KV, is read.

B+ VOLTAGE CONFIRMATION

1. Receive 130±1 VAC power voltage and monoscope pattern signal. Set BRIGHTNESS to standard and maximize PICTURE.
2. Connect a digital multimeter between the 115V line and the ground on the G board, and confirm that the rated value, $115.0^{+2.0}_{-3.0}$V is read.

CHECKING AFTER REPLACING IC601

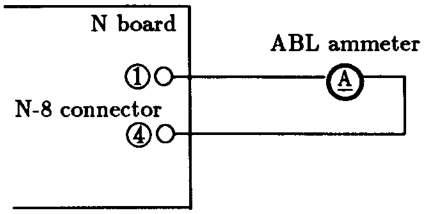
1. When replacing IC601, check the B+ voltage.

CHECKING THE OVP (overvoltage protection) CIRCUIT (⊠R652)

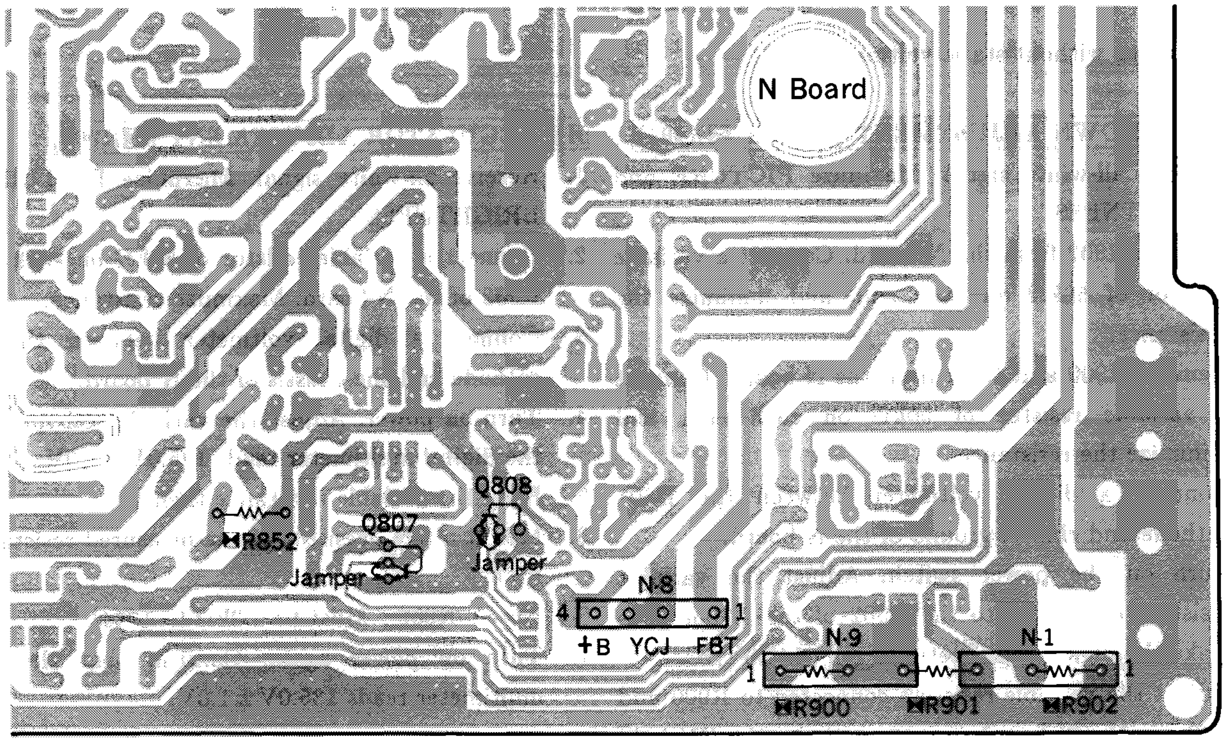
1. Receive 120 VAC power voltage and monoscope pattern signal. Maximize PICTURE and BRIGHTNESS.
2. Remove R638 from the G board and connect a variable resistor (4.7 to 10kΩ) instead.
3. Turn the variable resistor of 10kΩ and confirm that the OVP circuit is activated and luster disappears when B+ voltage reads the rated value, 125.0±5.0VDC.

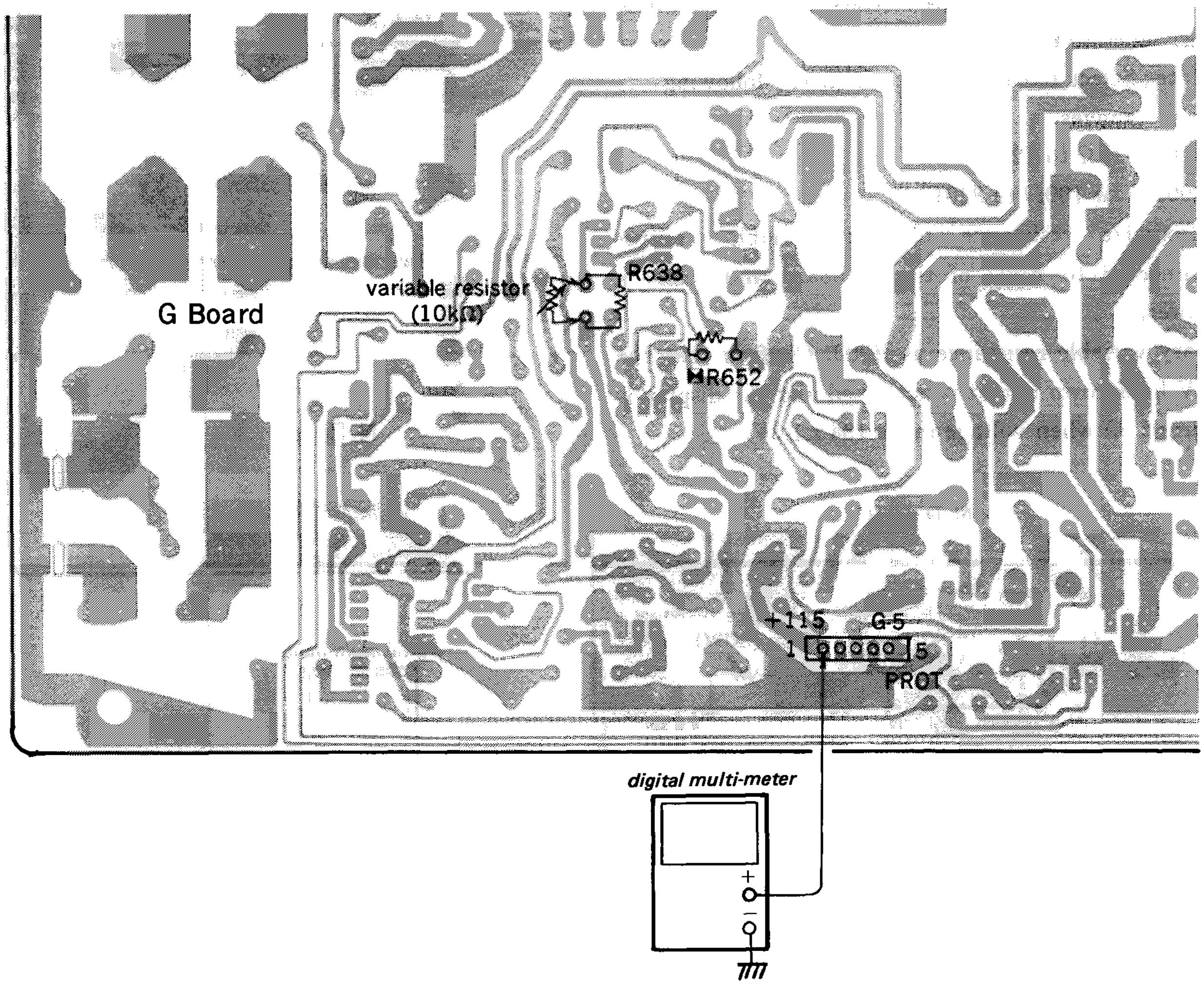
BEAM CURRENT PROTECTOR ADJUSTMENT (⊠ ① R852, ② R852)

1. Receive 120 VAC power voltage and monoscope pattern signal. Maximize BRIGHTNESS.
2. ① Connect the collector and the emitter of Q807 (on the N board)
3. Remove the jumper connector from the N-8 connector on the N board. Then connect an ABL ammeter between pin ① and pin ④ of the N-8 connector.



4. Raise PICTURE current gradually. Confirm that the beam current protector circuit is activated and luster disappears under the rated value, 3400 μA.
5. ② Connect the collector and the emitter of Q808. Verify that the protector circuit is activated and luster disappears similarly.

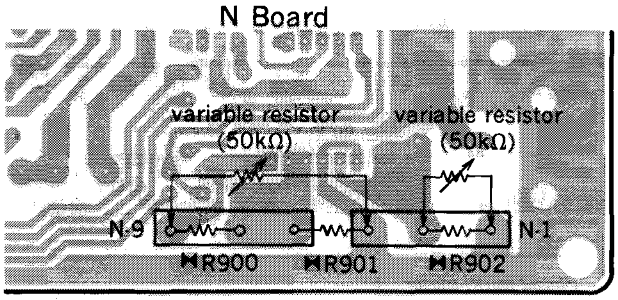

N Board
Q808
Q807
R852
Jamper
Jamper
N-8
4
1
+B
YCJ
FBT
N-9
N-1
1
1
R900
R901
R902


G Board
variable resistor
(10kΩ)
R638
R652
+115
G-5
1
5
PROT
digital multi-meter
+
−

— Checking without static voltmeter —

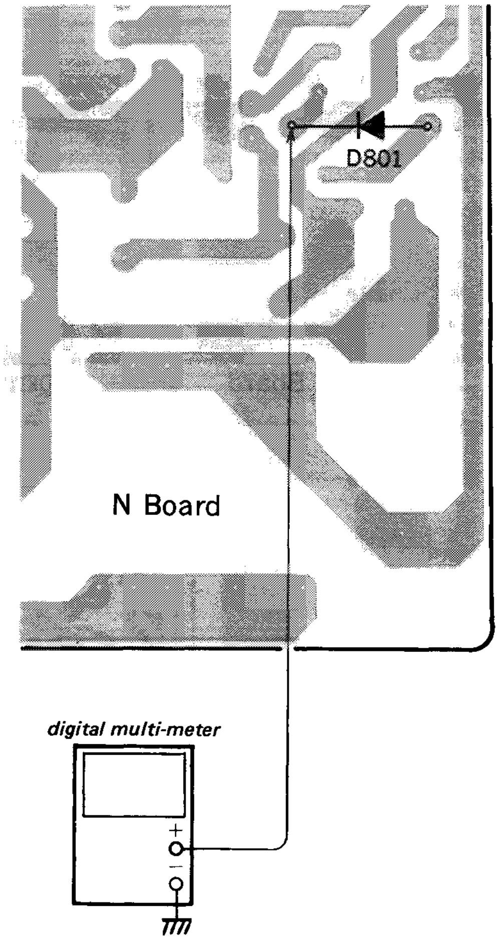
HV HOLD DOWN ADJUSTMENT (⊠R900, ⊠R901)

1. Receive all-white signal. Maximize PICTURE and BRIGHTNESS.
2. Remove R902 from the N board. Connect a variable resistor of 50kΩ on each end, and minimize the resistance.
3. Remove R900 and R901 from the N board. Connect a variable resistor of 50kΩ on each end, and minimize the resistance.
4. Connect a digital voltmeter between the D801 cathode and chassis ground of the N board.
5. Turn on the power switch. Adjust the variable resistors connected to the R902 of the N board to make the digital multimeter to read 145.0VDC.
6. Adjust the variable resistors connected to R900 and R901 on the N board so as to activate the HV hold down circuit and turn off the display.
7. Read the variable resistors connected to R900 and R901 and mount fixed resistors of measured resistance to the terminals.
   Note : Select fixed resistance from the following ranges.
   R900 : 1kΩ to 12kΩ
   R901 : Jw 100Ω to 820Ω
8. Maximize resistance of the variable resistor connected to R902 of the N board and turn on power.
9. Vary variable resistance at R902. Confirm that the HV hold down circuit is activated and the display is turned off when voltage reads 134±1.0V.



HV REGULATOR ADJUSTMENT (⊠R902)

1. Receive all-white signal. Maximize PICTURE and BRIGHTNESS.
2. Connect a variable resistor of 50kΩ on each end of R902 of the N board. Maximize resistance.
3. Connect a digital voltmeter between the D801 cathode and the chassis of the N board.
4. Turn on power. Adjust the variable resistor so that the digital multimeter reads 135.0V±1.0V.
5. Read the variable resistance then.
6. Mount a fixed resistor of the measured resistance to R902.
   Note : R902 : Must be 2.2kΩ to 16kΩ
7. Turn on power again. Confirm that the digital multimeter reads 135.0V±1.0V.



SECTION 5
CIRCUIT ADJUSTMENTS

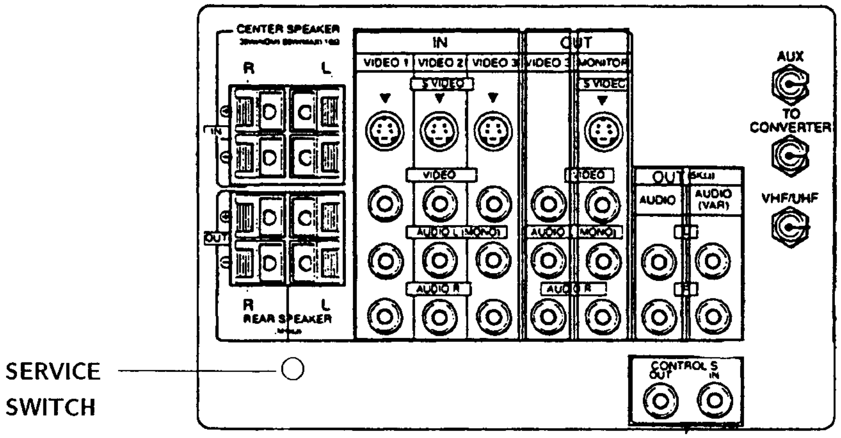
5-1. ELECTRICAL ADJUSTMENT BY REMOTE COMMANDER

Use of Remote Commander (RM-Y114) can be performed circuit adjustments about this model.

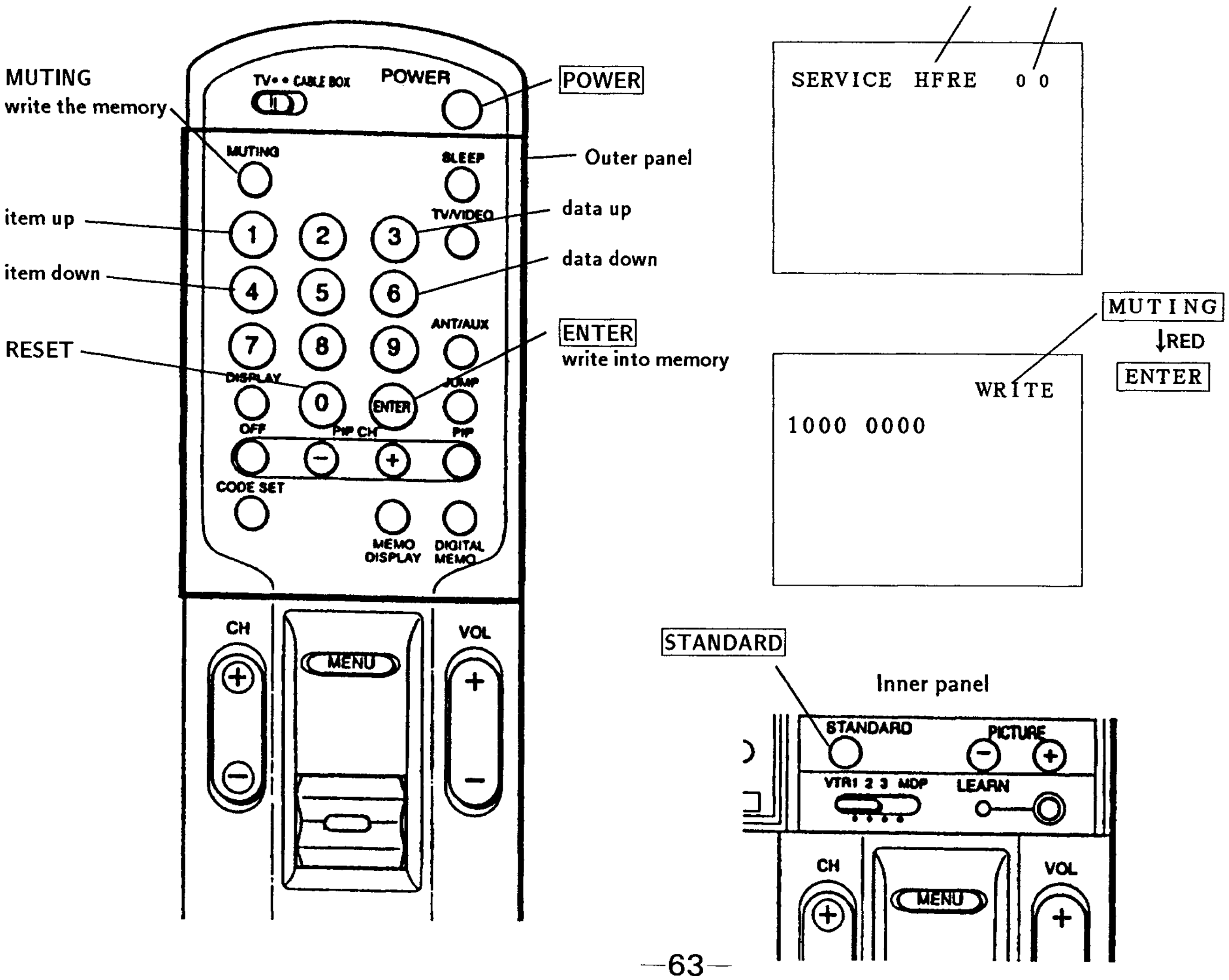
1. METHOD OF SETTING THE SERVICE MODE

1) Press POWER button on the Remote Commander while pressing switch on the rear of the set.

NOTE : Test Equipment Required.
1. Pattern Generator
2. Frequency counter
3. Digital multimeter
4. Audio OSC


CENTER SPEAKER
R
L
IN
OUT
R
L
REAR SPEAKER
IN
VIDEO 1
VIDEO 2
VIDEO 3
OUT
VIDEO 3
MONITOR
S VIDEO
S VIDEO
VIDEO
VIDEO
AUDIO L (MONO)
AUDIO
(MONO)
AUDIO R
AUDIO R
OUT
AUDIO
AUDIO (VAR)
AUX
TO CONVERTER
VHF/UHF
CONTROL S
OUT
IN
SERVICE SWITCH

2. ADJUST BUTTONS AND INDICATOR


MUTING
write the memory
item up
item down
RESET
POWER
Outer panel
data up
data down
ENTER
write into memory
TV•• CABLE BOX
POWER
MUTING
SLEEP
TV/VIDEO
1
2
3
4
5
6
7
8
9
ANT/AUX
DISPLAY
0
ENTER
JUMP
OFF
PIP CH
PIP
CODE SET
MEMO DISPLAY
DIGITAL MEMO
CH
MENU
VOL
item
data
SERVICE HFRE 0 0
MUTING
RED
ENTER
WRITE
1000 0000
STANDARD
Inner panel
STANDARD
PICTURE
VTR1 2 3 MDP
LEARN
CH
MENU
VOL

3. AN ITEM OF ADJUSTMENT

ITEM	REFERENCE DATA	NAME REGIST	
AFC	0	VP	AFC 1.0
HFRE	74	VP	H. FREQUENCE
VFRE	16	VP	V. FREQUENCE
HPOS	5	VP	H. PHASE
GAMP	25	VP	GREEN AMP.
BAMP	26	VP	BLUE AMP.
GCUT	9	VP	GREEN CUT OFF.
BCUT	6	VP	BLUE CUT OFF
SPIX	40	VP	PICTURE
SHUE	29	VP	HUE
SCOL	28	VP	COLOR
SBRT	11	VP	BRIGHT
RGBP	28	VP	RGB PICTURE
SHAR	13		SHARPNESS
DISP	21		OUTPUT
VSMO	0	VP	VSMO
REF	1	VP	REF 1.0
ROFF	1	VP	OFF NR
GOFF	1	VP	OFF NG
BOFF	1	VP	OFF NB
ABLM	1	VP	ABLM
DRGB	0	VP	D RGB
TEST	0	AP	T
MPX	7	AP	ATT
FILO	31	AP	I 1
DEEM	7	AP	I 2
STEV	31	AP	OSC 1
SAPV	31	AP	OSC 2
PILO	7	AP	PILOT
SEP	31	AP	WIDE BAND
VD	7	AP	SPECTRAL
LVOL	0	AP	VOLUME-L
RVOL	0	AP	VOLUME-R
BASS	10	AP	BASS
TRE	8	AP	TREBLE
PHPO	32	PI	READ DELAY H
PVPO	8	PI	READ DELAY V
PLEV	6	PI	PICTURE LEVEL
PFCO	7	PI	FRAME COLOR
NRLE	31		NR LEVEL
DSPP	43		
SHAD	1	PJ	SHADON
VMSW	1	PJ	RS HAD
SCUT	16	PJ	SHAD CUT OFF

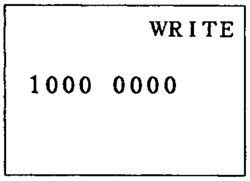
4. METHOD OF CANCELLATION FROM SERVICE MODE

Set the standby condition (Press POWER button on the commander) in the next place, press POWER button again, hereupon it becomes TV mode.

5. METHOD OF WRITE FOR MEMORY

1) Set to Service Mode.
2) Press 1 (UP) and 4 (DOWN), select an item of adjustments.
3) Press MUTING button indicate WRITE (RED) on screen.
4) Press ENTER button to write for memory.

6. MEMORY WRITE CONFIRMATION METHOD


WRITE

1000 0000

1) After adjustment, pull out the plug from AC outlet, and next place, plug in AC outlet again.
2) Turn the power switch ON and set to Service Mode.
3) Call the adjusted items again, confirm they were adjusted.

5-2. A BOARD ADJUSTMENTS

RF AGC ADJUSTMENT(IF BLOCK VR)

1) Input a color-bar signal.
2) Adjust AGC VR of TU 101 so that snow noise and cross-modulation disappear from the picture.
3) Confirm them at every channel.

H.FREQUENCY ADJUSTMENT (HFRE)

1) Set to Service Mode.
2) Input a color-bar signal.
3) Connect a frequency counter to base of Q 507.
4) Call the item of AFC, set to 3 level (free run).
5) Select HFRE with $\boxed{1}$ and $\boxed{4}$.
6) Adjust $\boxed{3}$ and $\boxed{6}$ to the 15735 ± 60 Hz level.
7) Call the item of AFC again, adjust the level" 01 ".
8) Write into the memory by pressing $\boxed{\text{MUTING}}$ → then $\boxed{\text{ENTER}}$.

V.FREQUENCY ADJUSTMENT (VFRE)

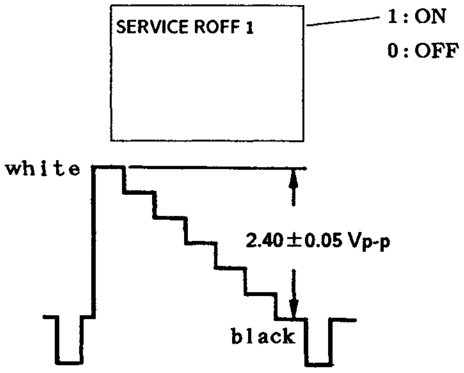
1) Set the Service Mode.
2) Input an off-air signal (VIDEO IN → no signal).
3) Connect the frequency counter across connector ⑪pin of E 1-1 connector and ground.
4) Select VFRE with $\boxed{1}$ and $\boxed{4}$.
5) Adjust $\boxed{3}$ and $\boxed{6}$ to the 55 ±0.5 Hz.
6) Write the memory by pressing $\boxed{\text{MUTING}}$ → then $\boxed{\text{ENTER}}$.

SUB CONTRAST ADJUSTMENT (SPIX)

1) Set to Service Mode.
2) Input a color-bar signal. (75 IRE)
3) Set the conditions as follows.

PICTURE	········· MAX
COLOR	········· MIN
BRIGHTNESS	········· MIN
TRINITONE	········· LOW
R OFF	········· ON
G OFF	········· OFF
B OFF	········· OFF

Press $\boxed{\text{MENU}}$ and select VIDEO MENU → $\boxed{-}$ (L)
(It becomes minimum).
Select $\boxed{3}$ (ON) and $\boxed{6}$ (OFF) with $\boxed{1}$ and $\boxed{4}$.

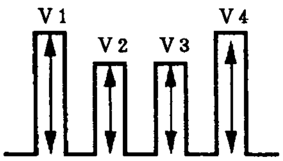


4) Connect an oscilloscope to TP 49 B of C board and ground.
5) Adjust $\boxed{3}$ and $\boxed{6}$ to the 2.40 ± 0.05 Vp-p level by select-ing SPIX with $\boxed{1}$ and $\boxed{4}$.
6) Write the memory by pressing $\boxed{\text{MUTING}}$ → then $\boxed{\text{ENTER}}$.
7) Return the following back to normal after adjustment.

G OFF	········· ON
B OFF	········· ON
COLOR	········· CENTER
BRIGHTNESS	········· CENTER
TRINITONE	········· HIGH
PICTURE	········· 80%

SUB HUE, SUB COLOR ADJUSTMENT (SHUE, SCOL)

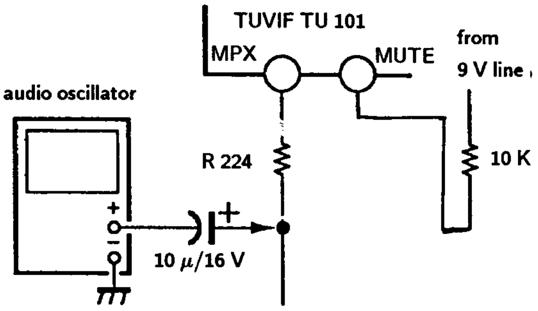
1) Input a color-bar signal.
2) Press STANDARD to normal.
3) Set to Service Mode.
4) Connect an oscilloscope to B output of A board and ground.
5) Adjust 3 and 4 to the V1=V4 and V2=V3 by select to SHUE and SCOL with 1 and 4. Lower the data 4 steps from this point.



6) Write into the memory by pressing MUTING →then ENTER.

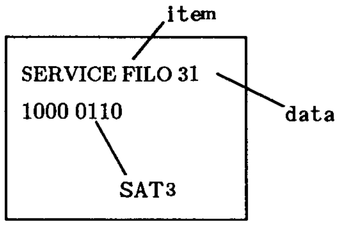
FILTER ADJUSTMENT (MPX, FILO)

1) Set to Service Mode.
2) Select to TEST with 1 and 4, set the data to “1”. Then select MPX and change data to “08” .
3) Connect an audio oscillator to R224 using a capacitor (10μF/16V), set frequency to 62.936 kHz±0.1 kHz.
And then, through the 10kΩ resistor, feed 9.0V into the mute of TUVIF TU 101.


TUVIF TU 101
MPX
MUTE
from
9 V line
audio oscillator
R 224
10 K
+
–
+
10 μ/16 V

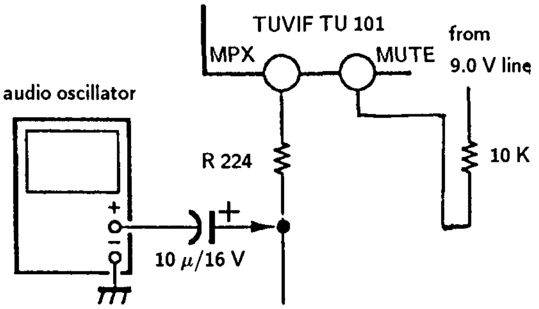
V 4 fh : SINE-WAVE 62.936 KHz±0.1 KHz
LEVEL 3.0 Vp-p

4) Make the data “00” by selecting FILO with 1 and 4 And then, send up the data gradually by pressing 6 . Set the data to D1 before SAT3 changing to 1 from 0.
5) Send up the data gradually. Set data D2 when SAT3 changes 0 from 1.
6) Adjust the data of FILO to $\frac{D1+D2}{2}$.
7) Write into the memory by pressing MUTING → then ENTER .


item
SERVICE FILO 31
1000 0110
data
SAT3

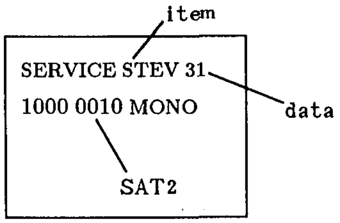
ST VCO ADJUSTMENT (MPX, STEV)

1) Set to Service Mode.
2) Select TEST with 1 and 4, set the data to "1". And then press MTS to MONO.
3) Select MPX, set the data "8".
4) Connect an audio oscillator to R 224 using electrolytic capacitor (10μ F/16V) and appply the frequency V_{ST}. Then, apply DC voltage to mute of TUVIF TU 101 using 10kΩ connect to 9.0 V line.



Vfh : SINE-WAVE 15.734 KHz±0.1 KHz
LEVEL 0.28 Vp-p

5) Select STEV with 1 and 4, set the data to "00" with 6. And then, send up the data gradually. Set the data to D1 before SAT2 changes from 0 to 1.
6) Send up data gradually, set the data to D2 when SAT2 changes 1 from 0.
7) Adjust the data of STEV to .
8) Write into the memory by pressing MUTING → then ENTER.



SERVICE STEV 31
1000 0010 MONO

MPX IN LEVEL ADJUSTMENT (MPX)

1) Set to Service Mode.
2) Select TEST with 1 and 4, set the data to "0" with 6. And then press MTS to MONO.
3) Select MPX with 1 and 4, set the data to "08" with 3 and 6.
4) Write into the memory by pressing MUTING → then ENTER.

PILOT CANCEL ADJUSTMENT (PILO)

1) Set to the Service Mode.
2) Select PILO with 1 and 4, set the data to "08" with 3 and 6.
3) Write into the memory by pressing MUTING → then ENTER.

SAP VCO f_0 ADJUSTMENT (SAPV)

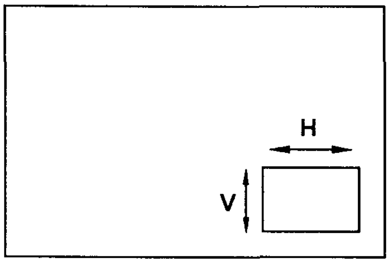
1) Set to Service Mode.
2) Input a stereo broadcast signal with SAP.
3) Select TEST with 1 and 4, set the data to "0". And then, press MTS to MAIN.
4) Connect a digital multimeter to TP-1(DBX). This voltage reading will equal V 1.
5) Press MTS to SAP and this voltage will equal V 2.
6) Select SAPV with 1 and 4, adjust 3 and 6 so that V 2=V 1±0.03 VDC.
7) Write the memory by MUTING → ENTER.

SEPARATION ADJUSTMENT (SEP)

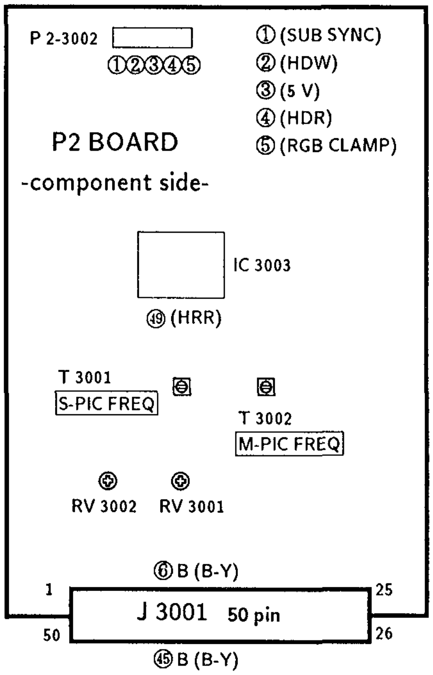
1) Set to Service Mode.
2) Press MTS to MAIN and receive a monoral broadcast signal.
In the next step, receive a stereo broadcast signal.
3) Select SEP and VD with 1 and 4, adjust 3 and 6 so that a clear stereo sound is effected.

READ DELAY H/V (PHPO, PVPO)

1) Input a cross hatch signal.
2) Set to service mode.
3) Press P/P a display a window picture. (RIGHT LOWER Position)
4) Select PHPO, PVPO with 1 and 4.
5) Adjust 3 and 6 to the READ DELAY H/V.
6) Write the memory by pressing MUTING → then ENTER .



5-3. P2 BOARD ADJUSTMENTS


P 2-3002
①②③④⑤
①(SUB SYNC)
②(HDW)
③(5 V)
④(HDR)
⑤(RGB CLAMP)
P2 BOARD
-component side-
IC 3003
㊾(HRR)
T 3001
S-PIC FREQ
T 3002
M-PIC FREQ
RV 3002
RV 3001
⑥B (B-Y)
1
25
J 3001 50 pin
50
26
㊺B (B-Y)

MAIN-PICTURE FREQUENCY (T 3002)

1) Set PIP mode.
2) Connect a frequency counten to Pin 11 (HDW) of J 3001.
3) Connect a frequency counten to Pin ㊾ or ㊿ (HRR) of IC 3003 or Pin 5 (RGB CLAMP) of P 2-3002.
4) Short the circuit between Pin 4 (HDR) of P 2-3002 and Pin 3 (5 V) of P 2-3002.
5) Turn T 3002 CLK (P) for the following frequency at Pin ㊾ or ㊿ (HRR) of IC 3003 or at Pin 5 (RGB CLAMP) of P 2-3002.

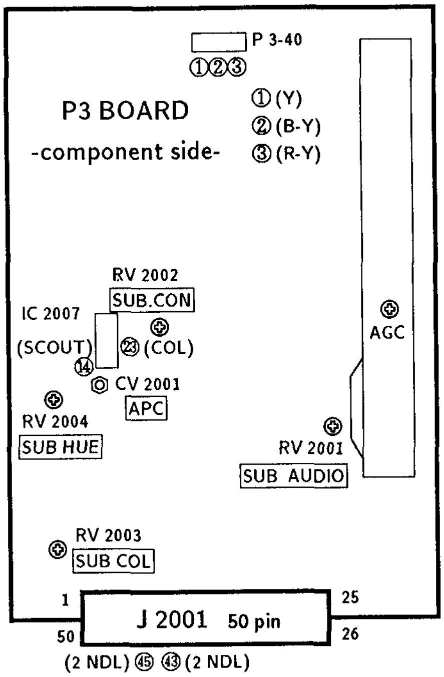
15.734 kHz ± 10 Hz

SUB-PICTURE FREQUENCY (T 3001)

1) Set PIP mode.
2) Connect a frequency counten to Pin 11 (HDW) of J 3001.
3) Connect a frequency counten to Pin ㊾ or ㊿ (HRR) of IC 3003 or Pin 5 (RGB CLAMP) of P 2-3002.
4) Short the circuit between Pin 1 (SUB SYNC) of P 2-3002 and Pin 3 (5 V) of P 2-3002.
5) Turn T 3001 CLK (C) for the following frequency at Pin 2 (HDW) of P 2-3002.

15.734 kHz ± 10 Hz

5-4. P3 BOARD ADJUSTMENTS


P 3-40
①②③
P3 BOARD
-component side-
①(Y)
②(B-Y)
③(R-Y)
RV 2002
SUB.CON
IC 2007
(SCOUT)
㉓(COL)
⑭
CV 2001
APC
RV 2004
SUB HUE
AGC
RV 2001
SUB AUDIO
RV 2003
SUB COL
1
25
J 2001 50 pin
50
26
(2 NDL) ㊺ ㊸ (2 NDL)

RF AGC ADJUSTMENT(IF BLOCK VR)

1) Input a color-bar signal.
2) Set to PICTURE IN PICTURE mode.
3) Adjust AGC VR of TU 2001 so that snow noise and cross-modulation disappear from the picture.
4) Confirm them at every channel.

SUB PICTURE SOUND VOLUME LEVEL (SUB AUDIO) ADJUSTMENT(RV2001)

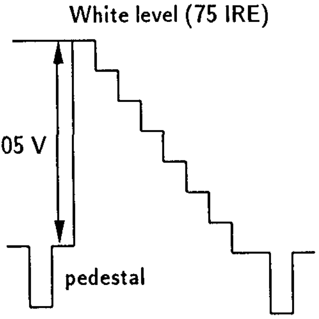
1) Receine an audio signal of 400 Hz. (100% mod.)
2) Adjust RV 2001 for the following level at Pin 43 (2 NDR) or Pin 45 (2 NDL) of J 2001.

500 mVrms ± 2 dB

SUB CONT ADJUSTMENT (RV 2002)

1) Obtain the color bar signal on the sub-screen.
2) Obsene at Pin 1 (Y OUT) of P 3-42 on an oscilloscope.
Odjust RV 2002 for the following lenel between the white level and pedestal one.

0.65 ± 0.05 Vp-p


White level (75 IRE)
0.65 ± 0.05 V
pedestal

SUB COLOR ADJUSTMENT(RV 2003)

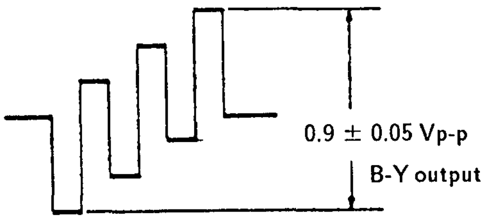
1) Obtain the color bar signal on the sub-screen in the mode of PIP size 1/4.
2) Reset color.
3) Adjust RV 2003 for the following level, obseruing an oscilloscope connectod to Pin 2 (B-Y) of P3-40 (Fig. 1)

0.9 ± 0.05 Vp-p (B-Y)

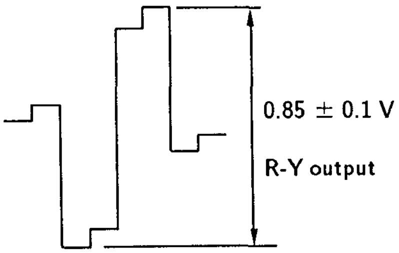
4) Adjust RV 2003 for the following level, obseruing an oscilloscope connectod to Pin 3 (R-Y) of P3-40 (Fig. 2)

0.85 ± 0.1 Vp-p (R-Y)

5) Adjust traxking between sub color and sub hue.


0.9 ± 0.05 Vp-p
B-Y output

(Fig. 1)

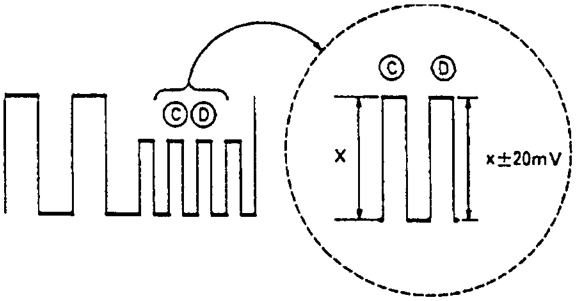

0.85 ± 0.1 V
R-Y output

(Fig. 2)

SUB HUE ADJUSTMENT(RV 2004)

1) Obtain the color bar signal on the sub-screen in the mode of PIP size 1/4.
2) Reset hue.
3) Obserne the signal at Pin 6 or Pin 45 of J 3001 on P 2 board on an oscilloscope and make adjustment to obtain the following level.

D : X ± 20 mV

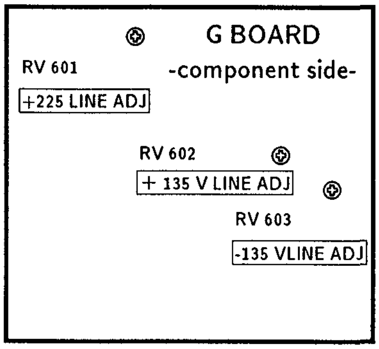


APC ADJUSTMENT(CV 2001)

Connect Pin ㉓ (COL) of IC 2007 fo ground and connect a frequency cound fo Pin ⑭ (SCOUT) fo obtain the following level.

3579545 ± 40 Hz

5-5. G BOARD ADJUSTMENTS



+225 V LINE ADJUSTMENT (RV 601)

1. Input the color-bar signal.
2. Connect a digital multimeter to emitter of Q 604.
3. Adjust RV 601 so that voltage is +225 V±0.5 V.

+135 V LINE ADJUSTMENT (RV 602)

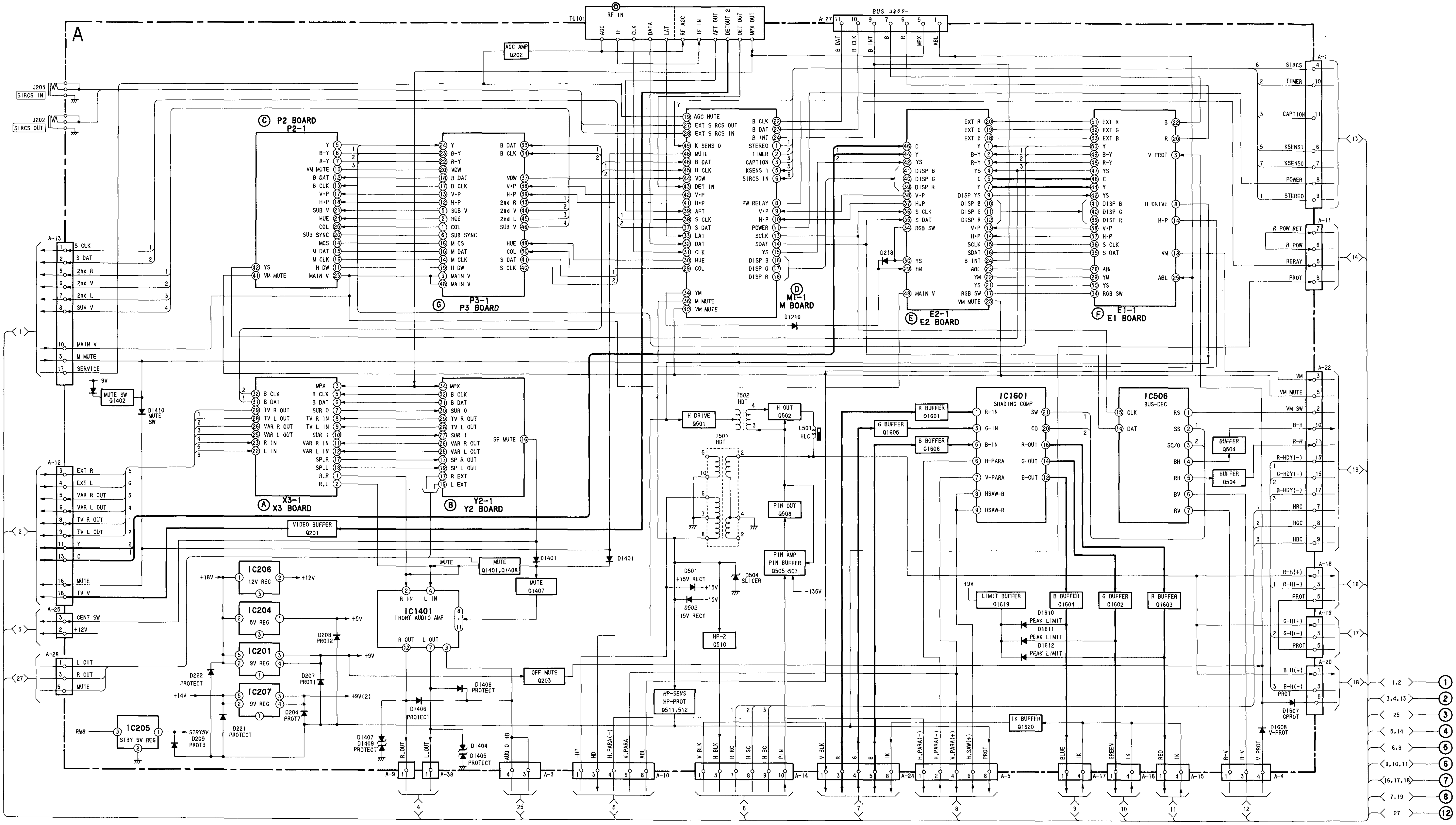
1. Input the color-bar signal.
2. Connect a digital multimeter to emitter of Q 601.
3. Adjust RV 602 so that voltage is +135 V±1.0 V.

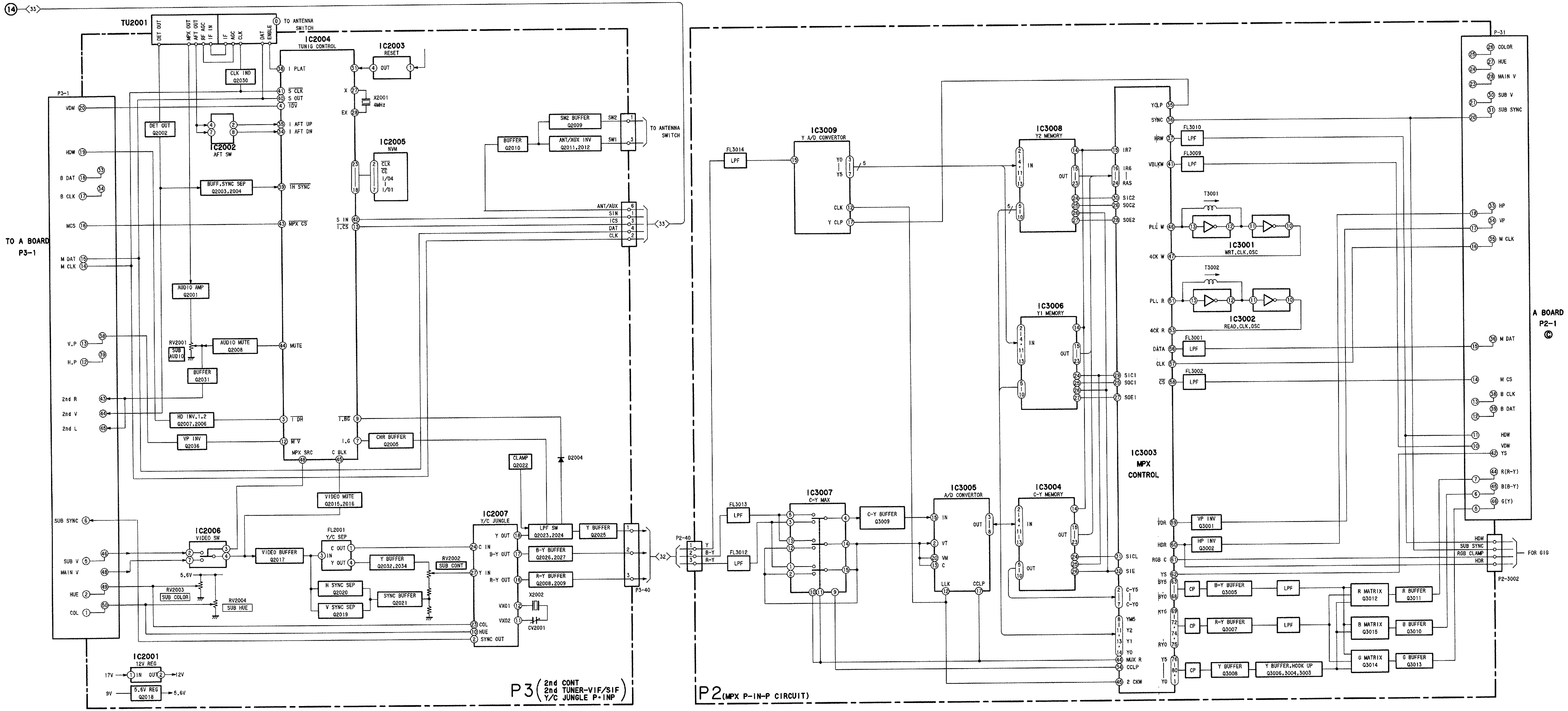
−135 V LINE ADJUSTMENT (RV 603)

1. Input the color-bar signal.
2. Connect a digital multimeter to emitter of Q 612.
3. Adjust RV 603 so that voltage is -135 V±0.1 V.

SECTION 6
DIAGRAMS

6-1. BLOCK DIAGRAMS

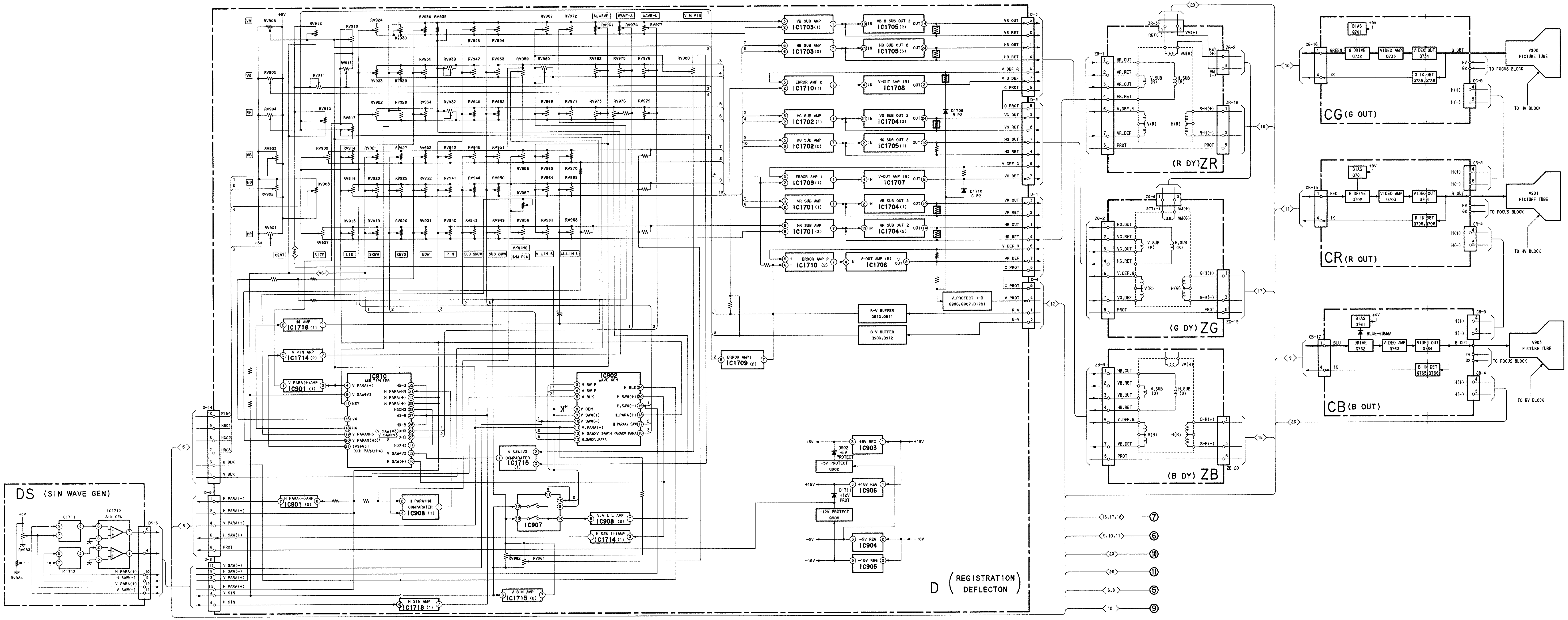

A
TU101
RF IN
AGC
IF
CLK
DATA
LAT
RF AGC
IF IN
AFT OUT
DETOUT 2
DET OUT
MPX OUT
BUS コネクター
AGC AMP Q202
J203 SIRCS IN
J202 SIRCS OUT
C P2 BOARD P2-1
G P3-1 P3 BOARD
D M1-1 M BOARD
E E2-1 E2 BOARD
F E1-1 E1 BOARD
A X3-1 X3 BOARD
B Y2-1 Y2 BOARD
D218
D1219
MUTE SW Q1402
D1410 MUTE SW
VIDEO BUFFER Q201
MUTE Q1401,Q1408
MUTE Q1407
D1401
IC206 12V REG
IC204 5V REG
IC201 9V REG
IC207 9V REG
IC205 STBY 5V REG
IC1401 FRONT AUDIO AMP
OFF MUTE Q203
D208 PROTECT
D207 PROTECT
D204 PROTECT
D222 PROTECT
D221 PROTECT
D209 PROTECT
D1406 PROTECT
D1408 PROTECT
D1407 D1409 PROTECT
D1404 D1405 PROTECT
H DRIVE Q501
T502 HDT
H OUT Q502
L501 HLC
T501 HDT
PIN OUT Q508
PIN AMP PIN BUFFER Q505-507
D501 +15V RECT
D502 -15V RECT
D504 SLICER
HP-2 Q510
HP-SENS HP-PROT Q511,512
-135V
IC1601 SHADING-COMP
R BUFFER Q1601
G BUFFER Q1605
B BUFFER Q1606
IC506 BUS-DEC
BUFFER Q504
LIMIT BUFFER Q1619
B BUFFER Q1604
G BUFFER Q1602
R BUFFER Q1603
D1610 PEAK LIMIT
D1611 PEAK LIMIT
D1612 PEAK LIMIT
IK BUFFER Q1620
D1607 CPROT
D1608 V-PROT
A-1
A-11
A-22
A-18
A-19
A-20
A-13
A-12
A-25
A-28
A-27
A-9
A-38
A-3
A-10
A-14
A-24
A-5
A-17
A-16
A-15
A-4
1,2 ①
3,4,13 ②
25 ③
5,14 ④
6,8 ⑤
9,10,11 ⑥
16,17,18 ⑦
7,19 ⑧
27 ⑫



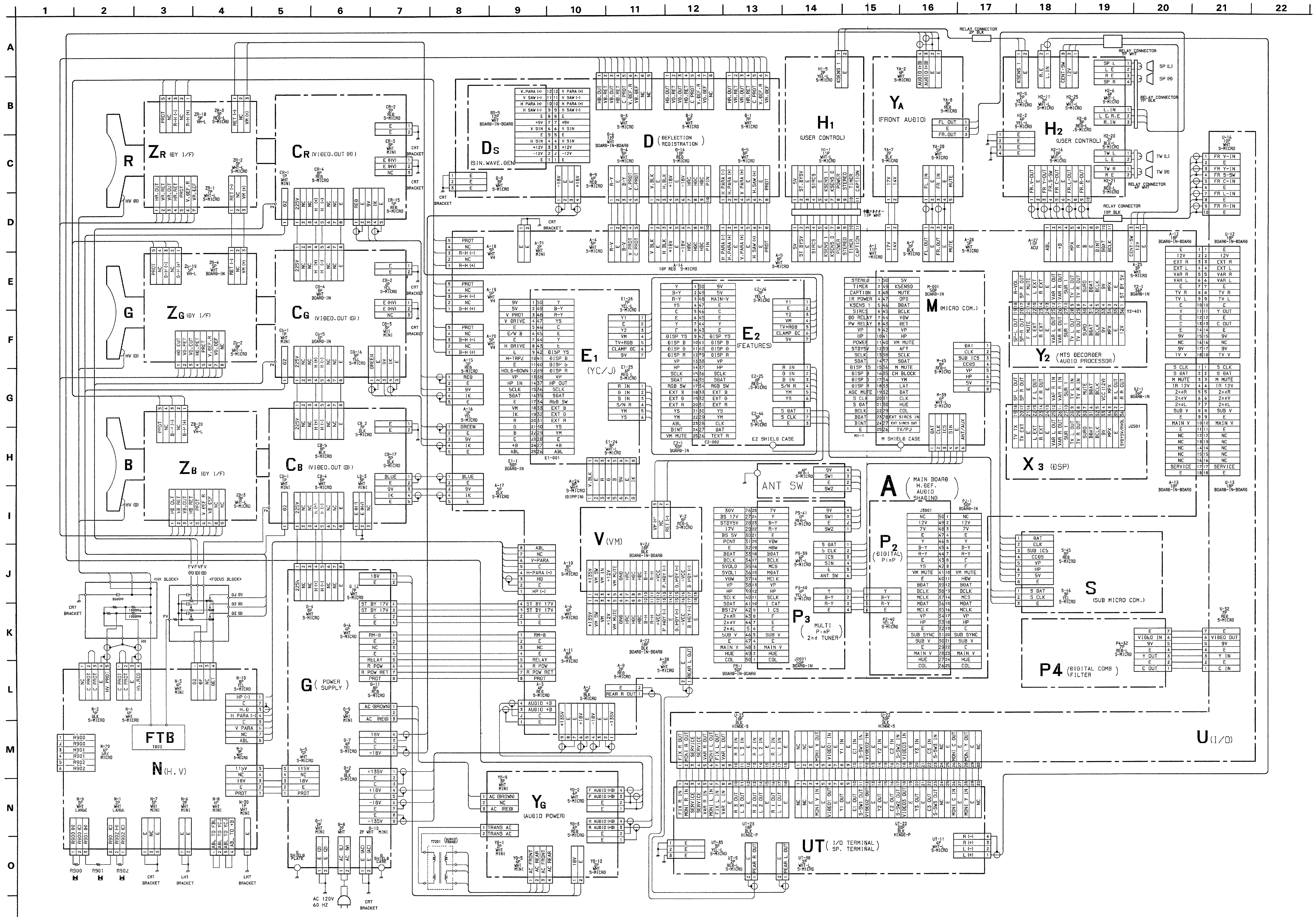
14
TU2001
TO ANTENNA SWITCH
IC2004 TUNIG CONTROL
IC2003 RESET
X2001 4MHz
IC2002 AFT SW
IC2005 NVM
CLK IND Q2030
DET OUT Q2002
BUFF, SYNC SEP Q2003,2004
AUDIO AMP Q2001
AUDIO MUTE Q2008
RV2001 SUB AUDIO
BUFFER Q2031
HD INV.1,2 Q2007,2006
VP INV Q2036
CHR BUFFER Q2005
VIDEO MUTE Q2015,2016
SW2 BUFFER Q2009
ANT/AUX INV Q2011,2012
BUFFER Q2010
TO ANTENNA SWITCH
TO A BOARD P3-1
P3-1
IC2006 VIDEO SW
VIDEO BUFFER Q2017
FL2001 Y/C SEP
Y BUFFER Q2032,2034
H SYNC SEP Q2020
V SYNC SEP Q2019
SYNC BUFFER Q2021
RV2002 SUB CONT
RV2003 SUB COLOR
RV2004 SUB HUE
IC2007 Y/C JUNGLE
LPF SW Q2023,2024
Y BUFFER Q2025
B-Y BUFFER Q2026,2027
R-Y BUFFER Q2008,2009
CLAMP Q2022
D2004
X2002
CV2001
P3-40
IC2001 12V REG
5.6V REG Q2018
P3 (2nd CONT 2nd TUNER-VIF/SIF Y/C JUNGLE P-INP)
P2-40
FL3014 LPF
FL3013 LPF
FL3012 LPF
IC3009 Y A/D CONVERTOR
IC3007 C-Y MAX
C-Y BUFFER Q3009
IC3005 A/D CONVERTOR
IC3008 Y2 MEMORY
IC3006 Y1 MEMORY
IC3004 C-Y MEMORY
IC3003 MPX CONTROL
FL3010 LPF
FL3009 LPF
T3001
IC3001 WRT.CLK.OSC
T3002
IC3002 READ.CLK.OSC
FL3001 LPF
FL3002 LPF
VP INV Q3001
HP INV Q3002
B-Y BUFFER Q3005
R-Y BUFFER Q3007
Y BUFFER Q3006
Y BUFFER,HOOK UP Q3006,3004,3003
R MATRIX Q3012
B MATRIX Q3015
G MATRIX Q3014
R BUFFER Q3011
B BUFFER Q3010
G BUFFER Q3013
P-31
A BOARD P2-1 ©
P2-3002
FOR GIG
P2 (MPX P-IN-P CIRCUIT)

U (AUDIO/VIDEO/IN/OUT)
IC1002 AUDIO/VIDEO SELECT SWITCH
IC1011 AUDIO AMP
YA (AUDIO AMP)
IC7001 FRONT AUDIO OUT
H2 (1)
UT (IN/OUT TERMINAL)
H1
IC1601 DETECTOR
H2 (2)
N (H.V)
IC805 H.PIN CONT
IC801 +12V REG
IC802 (1) IK DET
IC802 (2) Σ IK DET
IC804 (2) HV DET
IC803 (2) HV REG DET
IC803 (1) HV REG DET
IC804 (1) HV DET
T803 FBT
FOCUS BLOCK
HV BLOCK
TO PICTURE TUBE
YG
T7201 AUDIO TRANSFORMER
G (POWER SUPPLY)
IC601 REG-REF CONTROL
IC602 RERAY DRIVE
IC606 STBY-REG CONTROL
T601 PIT
T603 PRT
TO A BOARD A-2
TO D BOARD D7
TO A BOARD A-6
AC IN 120V 60HZ

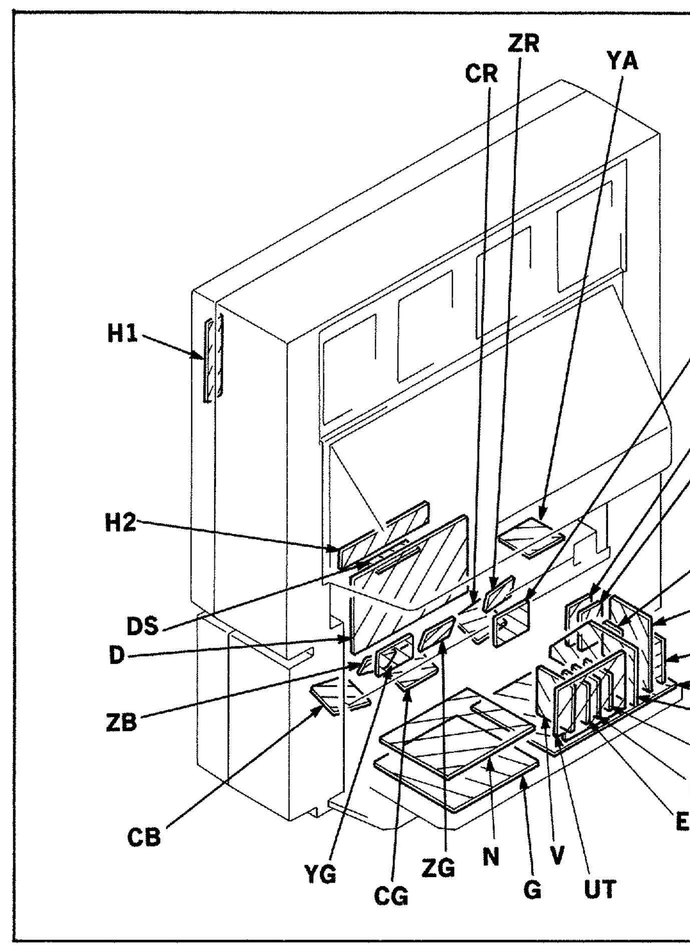
X3 (DIGITAL SIGNAL PROCESSOR)
A BOARD X3-1 Ⓐ
IC2506 LOW PASS FILTER
IC2503 AD/DA CONVERTOR
IC2512 REAR-VOLUME
IC2513 LOW PASS FILTER
IC2502 LOW PASS FILTER
IC2507 AD/DA CONVERTOR
IC2511 D-RAM
IC2510 DSP
IC2504 DSP
BUFFER Q2501
IC2508 CONTROL
IC2509 RESET
X3 (DIGITAL SIGNAL PROCESSOR)
P4 (DIGITAL COMB FILTER)
IC1202 4fsc GENERATOR
DIG COM FILTER
A/D CONVERTOR
D/A CONVERTOR
IC1201 5V REG
IC1203 5V REG
A BOARD E1-1 Ⓕ
IC302 (1) Y/C JUNGLE
IC301 TV
IC302 (2)
IC303 AFC
INVERTER Q326
C BUFFER Q310,321,344
Y BUFFER Q306
VM Q340-342-DL302
BUFFER Q334
H BUFFER Q328
AFC OUTPUT Q315,316
R OUTPUT Q322
G OUTPUT Q324
B OUTPUT Q325
INVERTER Q317
H SYNC SEP Q333,Q335
V.SW.Ik DET Q307-309
E1 (Y/C JANGLE)
V (VM)
IC1551 R,CENT(H)
IC1552 G,B CENT(H)
R DRIVE Q1551,1552
G DRIVE Q1555,1556
B DRIVE Q1553,1554
Y-HPF Q1504
VM AMP 1,2,3 Q1505,1506,1507
VM BUFFER Q1508
VM DRIVE OUTPUT Q1501,1502
VM MUTE Q1503
D1502 LEVEL SHIFT
D1509 BUS-SW
A BOARD E2-1 Ⓔ
R SLICE/R,G,B CLAMP/ B,G BUFFER Q2345,2339,2340,2341 Q2338,2342
R-G-B BUFFER Q2306-2308
IC2306 R-G-B SWITCH
R-G-B CLAMP Q2320-2322
YS OUTPUT/SWITCH Q2301-2303-2304-Q2337
IC2307 SUB D/A DAT CONVERTOR
YM SWITCH/BUFFER/OUTPUT Q2324-2309
IC2301 IC2303 CHA-GEN BRT-CONT
R-G-B BUFFER/OUTPUT YS SWITCH Q2310-2315 Q2317-2319
VM BUFFER Q2326
IC2304 SHARPNESS CONTROL
Y BUFFER Q2327
VM SW Q2330
E2 (SHARPNESS CONTROL CHARACTOR GENERATER)
A BOARD Y2-1 Ⓑ
IC404 MTS-DECODE
IC404 ROM
IC403 AUDIO AMP
IC406 D/A CONTROL
SCL-SDA BUFFER Q409,Q410
IC407 BASS/TREBLE BOOST
BUFFER Q405
BUFFER Q404
Y2 (MTS DECORD AUDIO CONT)
IC3401 RESET
IC3402 SUB CONTROL MICROCOMPUTER
S (SUB CONTROL)
A BOARD M1-1 A BOARD Ⓓ
MUTE 1 Q014
IC001 MICROCOMPUTER
V PULSE Q009
H PULSE Q010
MUTE Q009
CLK REV Q013
DAT SW Q011
H SYNC Q011
IC002 RESET
SIRCS1-5,8 Q002-Q004 Q006-Q008
D004 CLAMP
M (MAINCONTROL)


DS (SIN WAVE GEN)
IC1711
IC1712 SIN GEN
IC1713
RV983
RV984
H PARA(+)
H SAW(-)
V PARA(+)
V SAW(-)
D (REGISTRATION DEFLECTON)
IC910 MULTIPLIER
IC902 WAVE GEN
IC1703 VB SUB AMP
IC1705 VB B SUB OUT 2
IC1710 ERROR AMP 2
IC1708 V-OUT AMP (B)
IC1702 VG SUB AMP
IC1704 VG SUB OUT 2
IC1709 ERROR AMP 1
IC1707 V-OUT AMP (G)
IC1701 VR SUB AMP
IC1706 V-OUT AMP (R)
IC1718 H4 AMP
IC1714 V PIN AMP
IC901 V PARA(+)AMP
IC1715 V SAW+V3 COMPARATER
IC908 H PARA+H4 COMPARATER
IC907
IC1716 V SIN AMP
IC1718 H SIN AMP
IC903 +5V REG
IC906 +15V REG
IC904 -5V REG
IC905 -15V REG
Q902 -5V PROTECT
Q908 -12V PROTECT
R-V BUFFER Q910,Q911
B-V BUFFER Q909,Q912
V.PROTECT 1-3 Q906,Q907,D1701
CENT
SIZE
LIN
SKEW
KEYS
BOW
PIN
SUB SKEW
SUB BOW
V/WING
H/M PIN
W LIN S
M.LIN L
W.WAVE
WAVE-A
WAVE-U
V M PIN
ZR (R DY)
ZG (G DY)
ZB (B DY)
CG (G OUT)
CR (R OUT)
CB (B OUT)
V902 PICTURE TUBE
V901 PICTURE TUBE
V903 PICTURE TUBE
G DRIVE Q732
VIDEO AMP Q733
VIDEO OUT Q734
G IK DET Q735,Q736
R DRIVE Q702
VIDEO AMP Q703
VIDEO OUT Q704
R IK DET Q705,Q706
BIAS Q701
BIAS Q761
BLUE-GAMMA
DRIVE Q762
VIDEO AMP Q763
VIDEO OUT Q764
B IK DET Q765,Q766
TO FOCUS BLOCK
TO HV BLOCK
⑦ ⑥ ⑩ ⑪ ⑤ ⑨

6-2. FRAME SCHEMATIC DIAGRAM


ZR (DY I/F)
CR (VIDEO.OUT (R))
ZG (DY I/F)
CG (VIDEO.OUT (G))
ZB (DY I/F)
CB (VIDEO.OUT (B))
DS (SIN.WAVE.GEN)
D (DEFLECTION REGISTRATION)
H1 (USER CONTROL)
YA (FRONT AUDIO)
H2 (USER CONTROL)
E1 (YC/J)
E2 (FEATURES)
E2 SHIELD CASE
M (MICRO COM.)
M SHIELD CASE
Y2 (MTS DECORDER AUDIO PROCESSOR)
X3 (DSP)
V (VM)
ANT SW
A (MAIN BOARD H.DEF. AUDIO SHADING)
P2 (DIGITAL PinP)
P3 (MULTI PinP 2nd TUNER)
S (SUB MICRO COM.)
P4 (DIGITAL COMB FILTER)
G (POWER SUPPLY)
FTB
T803
N (H.V)
YG (AUDIO POWER)
UT (I/O TERMINAL SP. TERMINAL)
U (I/O)
R
G
B
CRT BRACKET
HV BLOCK
FOCUS BLOCK
AC 120V 60 HZ
RELAY CONNECTOR
SP (L)
SP (R)
TW (L)
TW (R)

6-3. CIRCUIT BOARDS LOCATION


CR
ZR
YA
H1
S
Y2
X3
H2
P4
P3
DS
P2
D
A
ZB
U
M
E2
E1
CB
YG
CG
ZG
N
G
V
UT

6-4. SCHEMATIC DIAGRAMS AND WIRING BOARDS

- All capacitors are in uF unless otherwise noted. pF: $\mu\mu$F 50WV or less are not indicated except for electrolytic and tantalums.
- All electrolytics are in 50V unless otherwise specified.
- All resistors are in ohms.
  kΩ=1000Ω, MΩ=1000kΩ
- Indication of resistance, which does not have one for rating electrical power, is as follows.

  Pitch: 5 mm
  Rating electrical power 1/4W

- Chips resistors are 1/10W.
- ▭: nonflammable resistor.
- ▭ fusible resistor.
- △: internal component.
- ☐: panel designation, and adjustment for repair.
- All vasiable and adjustable resistors have characteristic curve B, unless otherwise noted.
- ⊥ : earth-ground.
- ⏚ : earth-chassis.
- The components identified by ⧓ in this manual have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. Should repalacement be requimed, replace only with the value originally used.
- When replacing components identified by ◢ mark the necessary adjustments indicated. If results do not meet the specified value, change the component identified by ⧓ and repeat the adjustment until the specified value is achieved.

(Refer to R652, R852, R900, R901, and R902 adjustment on page 59-62)

When replacing the part in below table, be sure to parform the related adjustment.

Part replaced (◢)		Adjustment (⧓)
HV Block IC803, IC805, D805, D807, C817, C818, C821, C836, C837, R824, R825, R827, R828, R834, R835, R836, R864, R865, R866, R902	N Board	HV Regurater (R902)
HV Block IC803, IC804, Q804, D806, D808, C809, C819, C820, C822, C823, C850, R807, R829, R826, R832, R833, R837, R838, R839, R840, R841, R892, R893, R900, R901	N Board	HV Hold down (R900, R901)
Q618, Q621, D628, C634, R639, R649, R652, R655, R656	G Board	OVP (R652)
① IC802, Q805, Q807, D811, D812, C810, C824, C825, C826, C827, C831, R810, R843, R844, R847, R848, R849, R850, R851, R852, R853, R854, R881	N Board	Beme current protecter ① R852 ② R852
② IC804, Q804, Q808, D808, D809, C809, C828, C829, C830, C831, R807, R839, R840, R841, R847, R848, R849, R850, R851, R852, R855, R856, R857, R881	N Board	

Reference information

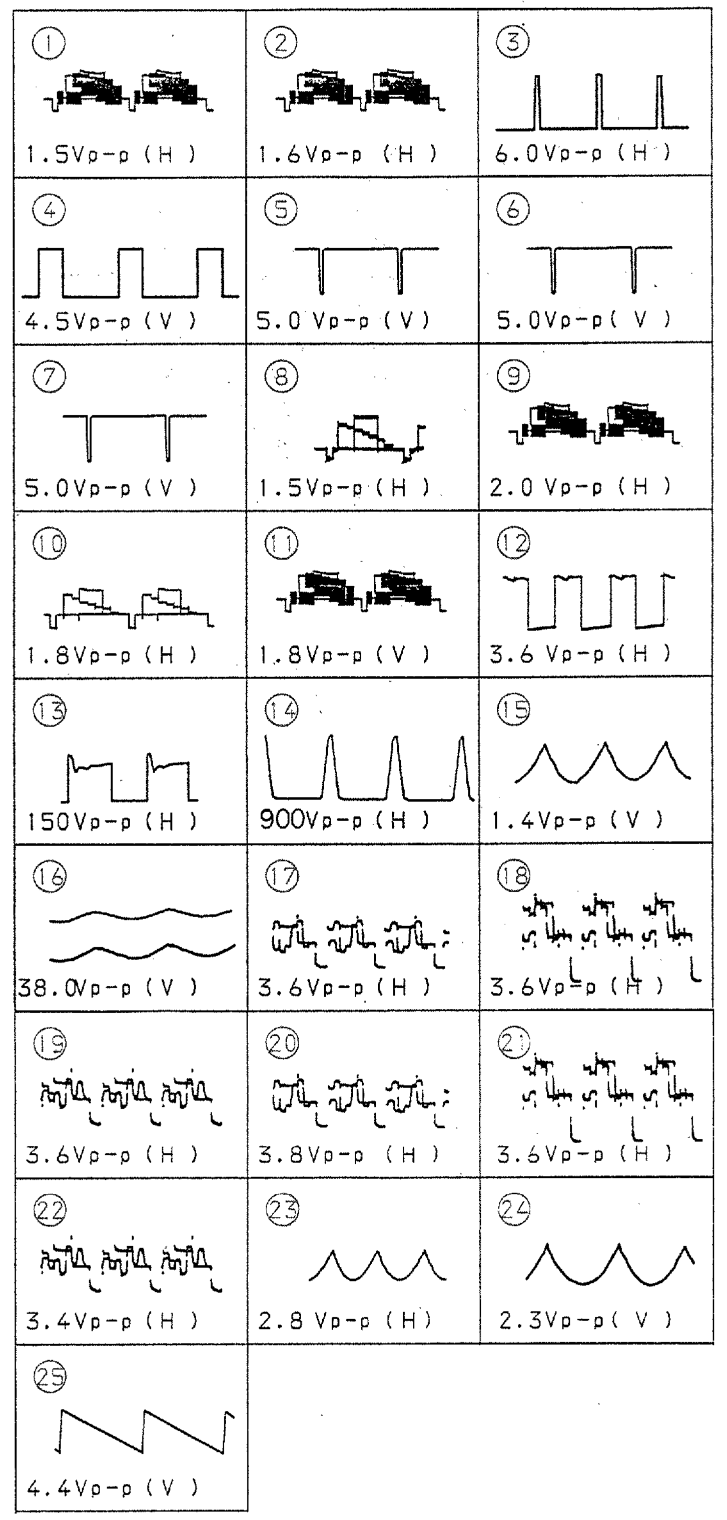
RESISTOR	:	RN	METAL FILM
	:	RC	SOLID
	:	FPRD	NONFLAMMABLE CARBON
	:	FUSE	NONFLAMMABLE FUSIBLE
	:	RS	NONFLAMMABLE METAL OXIDE
	:	RB	NONFLAMMABLE CEMENT
	:	RW	NONFLAMMABLE WIREWOUND
	:	※	ADJUSTMENT RESISTOR
COIL	:	LF-8L	MICRO INDUCTOR
CAPACITOR	:	TA	TANTALUM
	:	PS	SOYROL
	:	PP	POLYPROPYLENE
	:	PT	MYLAR
	:	MPS	METALIZED POLYESTER
	:	MPP	METALIZED POLYPROPYLENE
	:	ALB	BIPOLAR
	:	ALT	HIGH TEMPERATURE
	:	ALR	HIGH RIPPLE

- Readings are taken with a color-bar signal input
- Reading are taken with a 10 MΩ digital multimeter
- Voltage are dc with respect to ground unless otherwise noted
- Voltage variations may be noted due to normal production tolerances
- All voltages are in V
- Circuled numbers are waveform references
- V . B+ bus
- V : B− bus
- : signal path

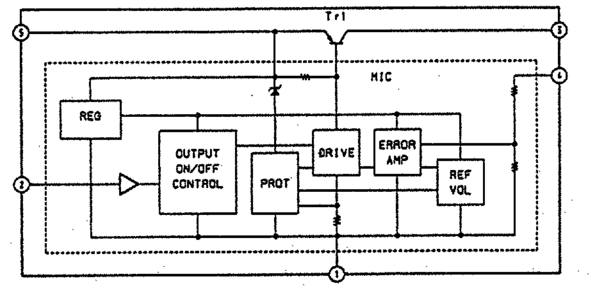
Note: The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

Note: Les composants identifiés par une trame et par une marque ⚠ sont d'une importance critique pour la sécurité. Ne les remplacer que par des pièces de numéro spécifié.

— A Board —

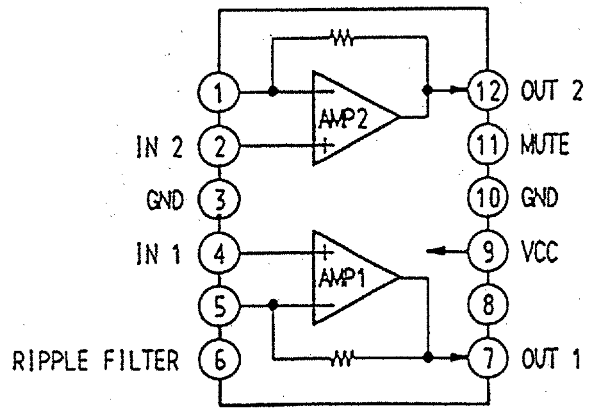


A Board IC201, 207 SI-3090CA

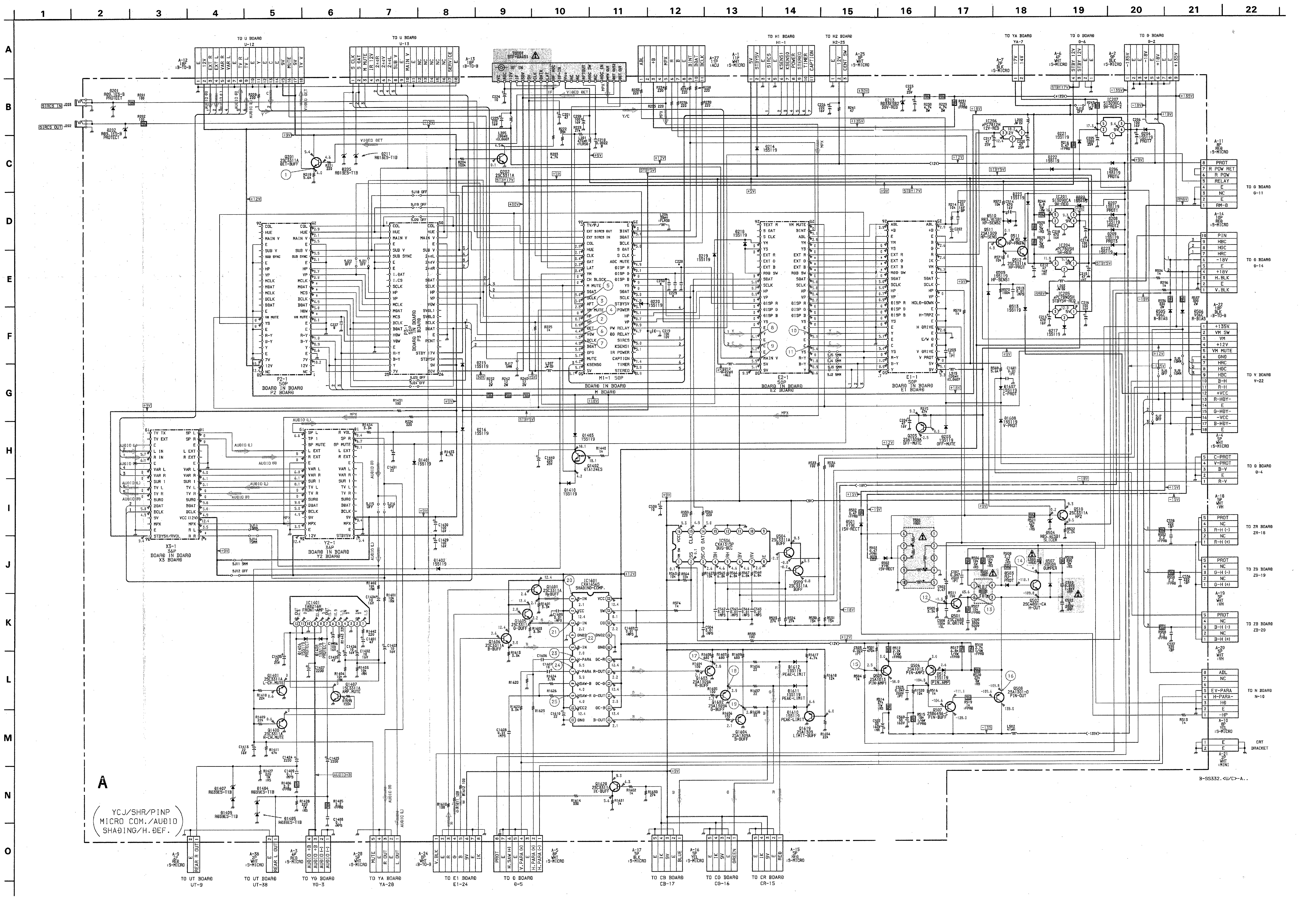


REG
OUTPUT ON/OFF CONTROL
PROT
DRIVE
ERROR AMP
REF VOL
MIC

A Board IC1401 TA8216H

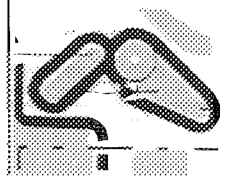


IN 2
GND
IN 1
RIPPLE FILTER
AMP2
AMP1
OUT 2
MUTE
GND
VCC
OUT 1



A
YCJ/SHR/PINP
MICRO COM./AUDIO
SHADING/H.DEF.
B-SS332.<U/C>-A..
TO U BOARD U-12
TO U BOARD U-13
TO H1 BOARD H1-1
TO H2 BOARD H2-25
TO YA BOARD YA-7
TO G BOARD G-6
TO G BOARD G-2
TO G BOARD G-11
TO G BOARD G-14
TO V BOARD V-22
TO G BOARD G-4
TO ZR BOARD ZR-18
TO ZG BOARD ZG-19
TO ZB BOARD ZB-20
TO N BOARD N-10
CRT BRACKET
TO UT BOARD UT-9
TO UT BOARD UT-38
TO YG BOARD YG-3
TO YA BOARD YA-28
TO E1 BOARD E1-24
TO G BOARD G-5
TO CB BOARD CB-17
TO CG BOARD CG-16
TO CR BOARD CR-15
P2-2 50P BOARD IN BOARD P2 BOARD
P3-1 BOARD IN BOARD P3 BOARD
M1-1 50P BOARD IN BOARD M1 BOARD
E2-1 50P BOARD IN BOARD E2 BOARD
E1-1 50P BOARD IN BOARD E1 BOARD
X3-1 36P BOARD IN BOARD X3 BOARD
Y2-1 36P BOARD IN BOARD Y2 BOARD
IC1401 TA8216H FRONT-AMP
IC1601 CXA1213S SHADING-COMP.

A [YCJ/SHR/PINP, MICRO COM/AUDIO, SHADING/H. DEF.]



NOTE:
The circuit indicated as left contains high voltage of over 600 Vp-p. Care must be paid to prevent an electric shock in inspection or repairing.

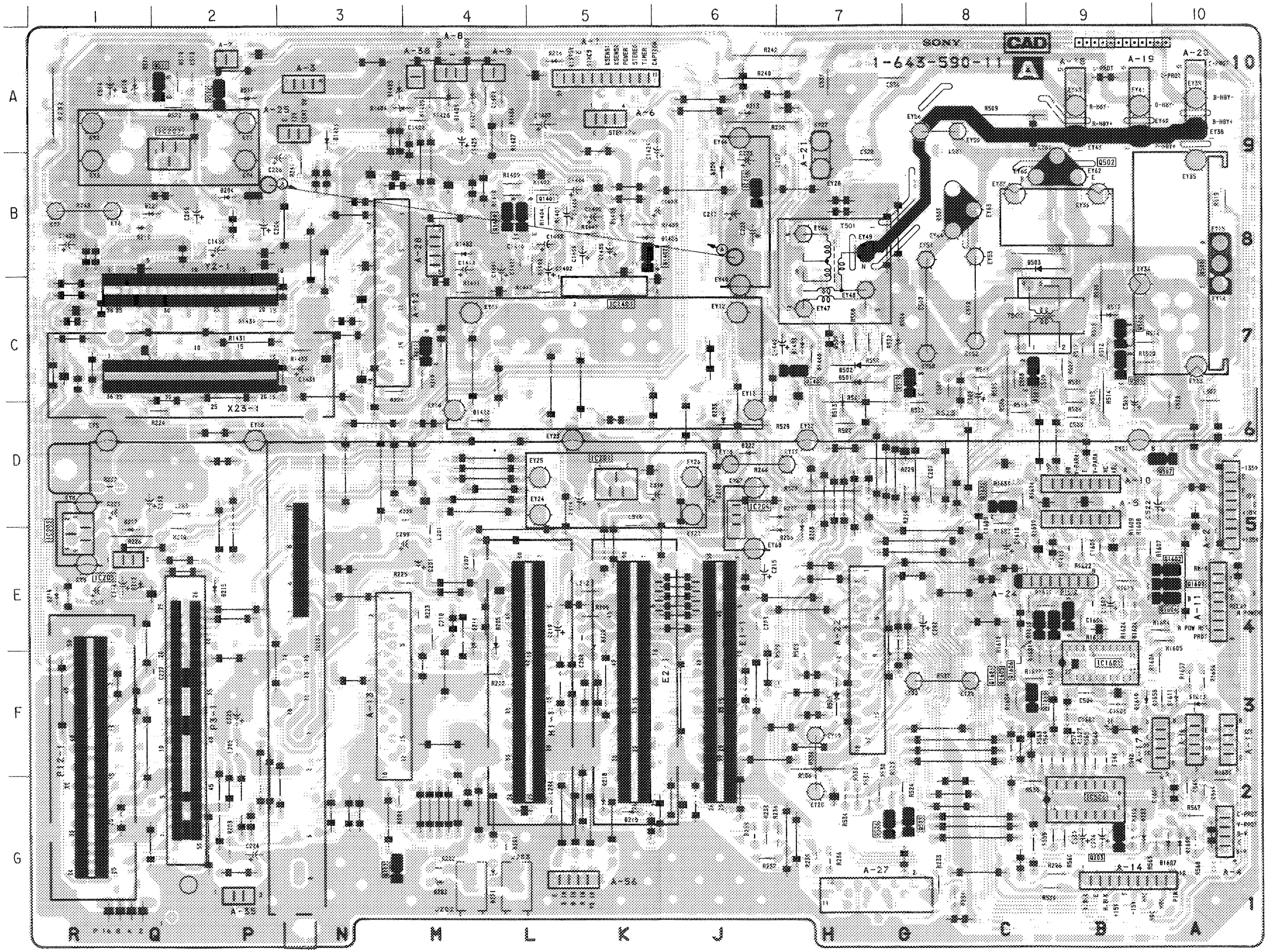
— A Board —

IC	
IC201	D-5
IC204	D-6
IC205	E-1
IC206	B-6
IC207	A-2
IC506	G-9
IC1401	C-5
IC1601	F-9

TRANSISTOR	
Q201	C-4
Q202	G-3
Q203	G-9
Q501	C-9
Q502	B-9
Q504	G-7
Q505	C-9
Q506	C-9
Q507	D-10
Q508	B-10
Q509	G-8
Q510	C-8
Q511	A-2
Q512	A-2
Q1401	B-4
Q1402	C-7
Q1407	B-5
Q1408	B-4
Q1601	E-9
Q1602	E-10
Q1603	E-10
Q1604	E-10
Q1605	E-9
Q1606	E-9
Q1619	F-9
Q1620	D-8

DIODE	
D203	G-9
D204	B-2
D205	E-4
D206	E-7
D207	D-7
D208	E-7
D209	B-6
D211	E-4
D213	A-6
D214	A-5
D215	E-2
D216	E-1
D217	E-1
D218	G-5
D219	G-5
D220	E-5
D501	C-7
D502	C-7
D503	B-9
D504	C-7
D505	F-7
D506	F-7
D507	B-8
D509	C-7
D510	A-1
D511	A-2
D512	C-9
D513	D-7
D1401	A-3
D1402	B-4
D1403	C-7
D1404	A-4
D1405	A-3
D1406	B-5
D1407	A-4
D1408	B-5
D1409	A-4
D1410	D-4
D1607	G-10
D1608	G-10
D1610	F-9
D1611	F-10
D1612	F-10

— A Board —

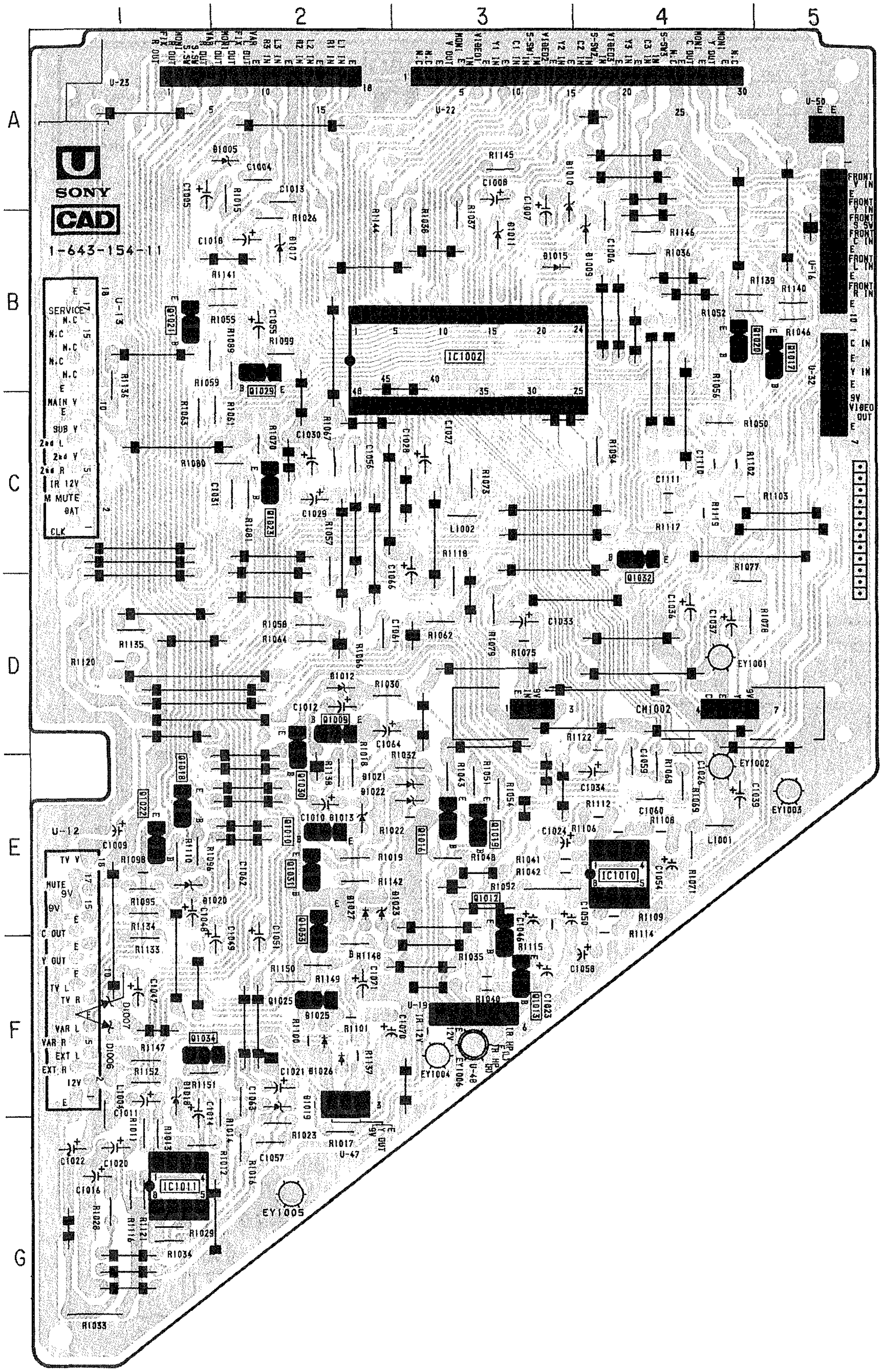

1
2
3
4
5
6
7
8
9
10
A
B
C
D
E
F
G
SONY
CAD
A
1-643-590-11
10
9
8
7
6
5
4
3
2
1
R
Q
P
N
M
L
K
J
H
G
C
B
A
A-25
A-3
A-8
A-9
A-6
A-21
A-19
A-23
A-28
A-12
A-18
A-24
A-22
A-27
A-56
A-35
A-14
A-17
A-11
T501
IC1401
IC201
IC205
IC1601
Q502
X23-1
X2-1
P12-1
P3-1
M1-1
E2-1
R509
R240
R242

U [AUDIO IN/OUT, VIDEO IN/OUT]

— U Board —

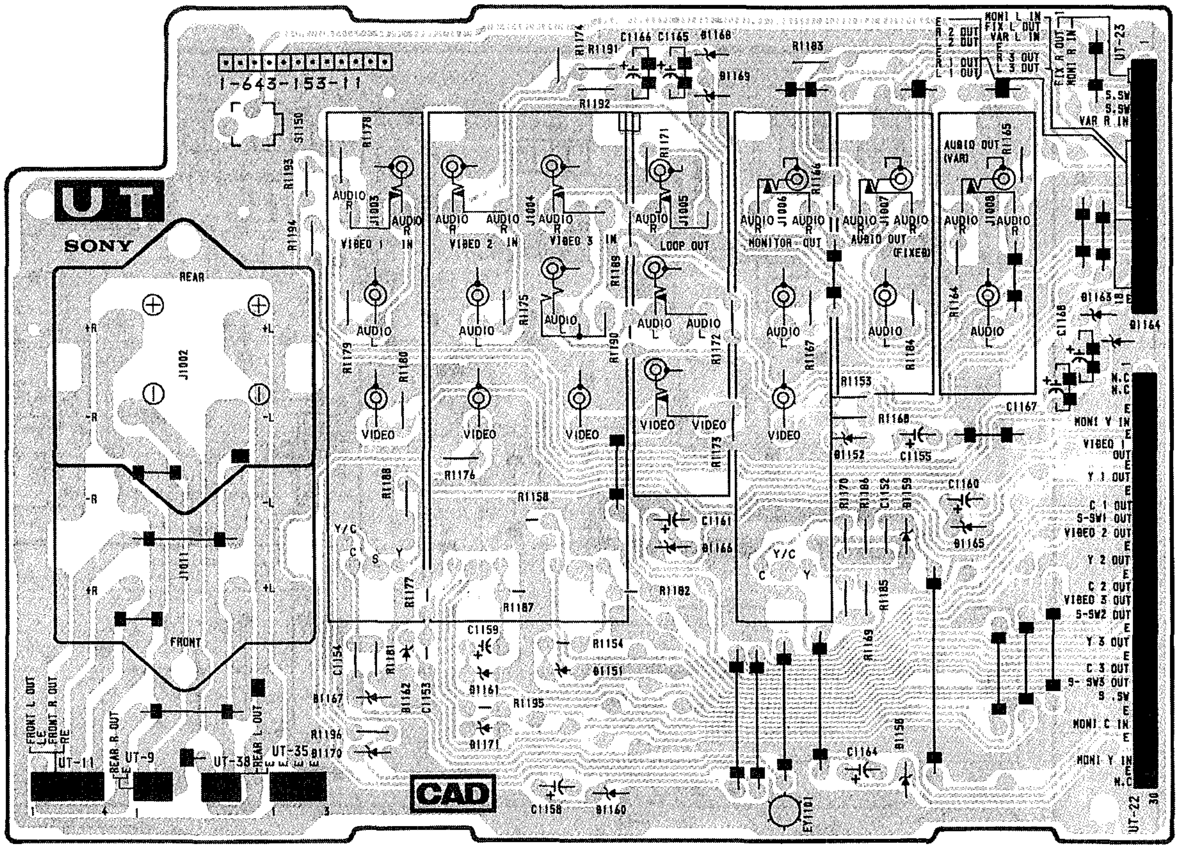
IC	
IC1002	B 3
IC1011	G 1
TRANSISTOR	
Q1009	D 2
Q1010	E 2
Q1016	E 3
Q1017	B 5
Q1018	E-1
Q1019	E-3
Q1020	B 4
Q1021	B 1
Q1022	E 1
Q1023	C 2
Q1029	B 2
Q1030	E 2
Q1031	E 2
Q1032	C 4
Q1033	E 2
Q1034	F-1
DIODE	
D1005	A 2
D1009	B 4
D1010	A 3
D1011	A-3
D1012	D 2
D1013	E 2
D1015	B 2
D1017	B 2
D1018	F 1
D1019	F 2
D1020	E-1
D1021	E-3
D1022	E 3

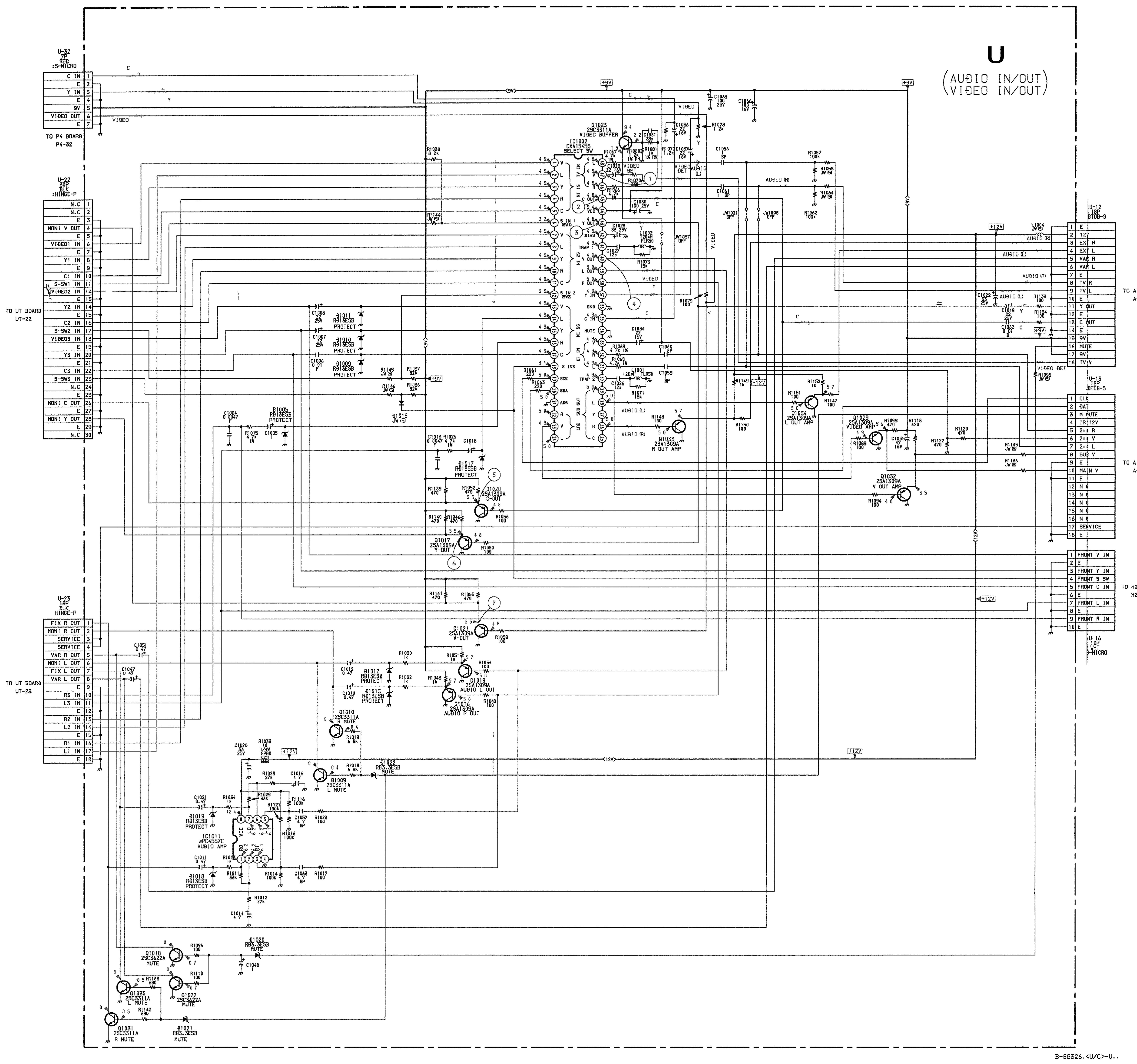
— U Board —


1
2
3
4
5
A
B
C
D
E
F
G
U
SONY
CAD
1-643-154-11
IC1002
IC1011
IC1010
CN1002
U-23
U-22
U-13
U-12
U-14
U-32
U-50
U-19
U-48
U-47
EY1001
EY1002
EY1003
EY1004
EY1005
EY1006
SERVICE
MAIN V
SUB V
IR 12V
M MUTE
BAT
CLK
TV V
MUTE
C OUT
Y OUT
TV L
TV R
VAR L
VAR R
EXT L
EXT R
FRONT V IN
FRONT Y IN
FRONT S 5V
FRONT L IN
FRONT R IN
C IN
Y IN
9V
VIDEO OUT

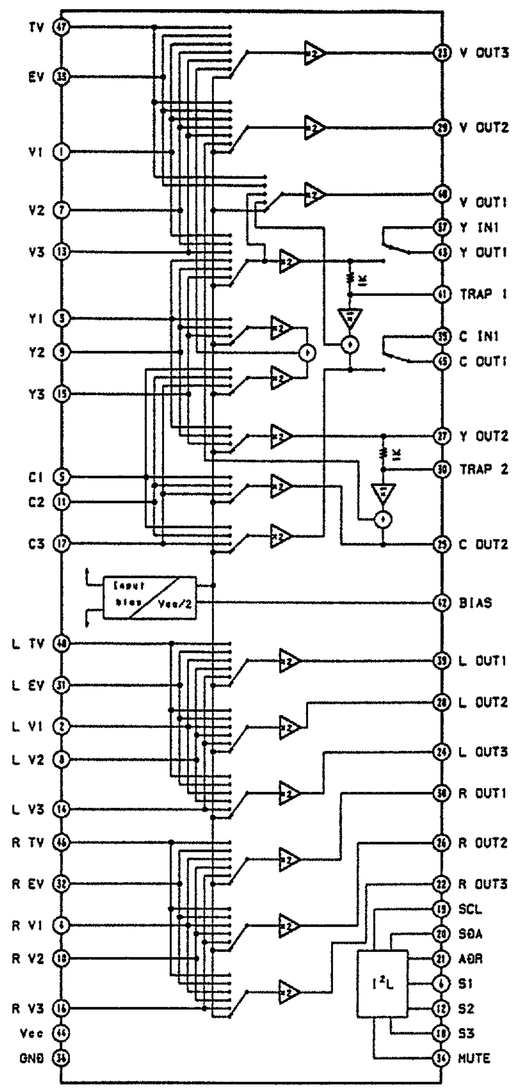
UT [IN/OUT TERMINAL, SP TERMINAL]

— UT Board —

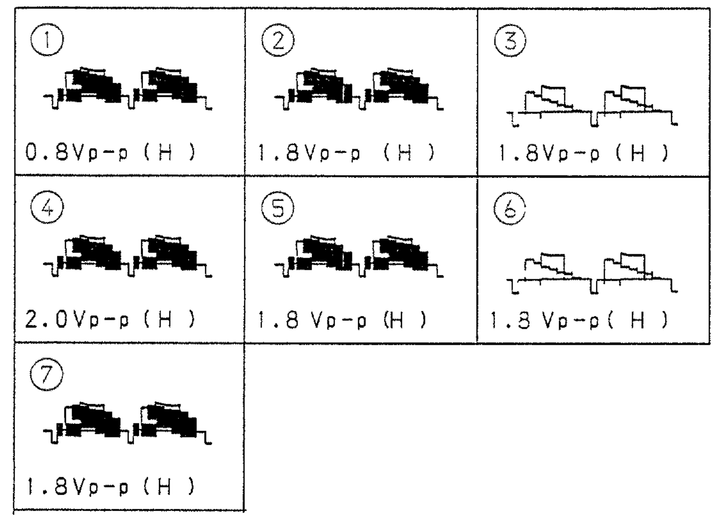

1-643-153-11
UT
SONY
REAR
FRONT
J1002
J1011
+R
+L
-R
-L
AUDIO
VIDEO
VIDEO 1 IN
VIDEO 2 IN
VIDEO 3 IN
LOOP OUT
MONITOR OUT
AUDIO OUT (FIXED)
AUDIO OUT (VAR)
Y/C
C
S
Y
J1003
J1004
J1005
J1006
J1007
J1008
R1171
R1172
R1173
R1174
R1175
R1176
R1177
R1178
R1179
R1180
R1181
R1182
R1183
R1184
R1185
R1186
R1187
R1188
R1189
R1190
R1191
R1192
R1193
R1194
R1195
R1196
C1152
C1153
C1154
C1155
C1158
C1159
C1160
C1161
C1164
C1165
C1166
C1167
C1168
D1150
D1151
D1152
D1158
D1159
D1160
D1161
D1162
D1163
D1164
D1165
D1166
D1167
D1168
D1169
D1170
D1171
R1153
R1154
R1158
R1164
R1165
R1166
R1167
R1168
R1169
R1170
MONI L IN
FIX L OUT
VAR L IN
FIX R OUT
MONI R IN
R 2 OUT
L 2 OUT
R 1 OUT
L 1 OUT
R 3 OUT
L 3 OUT
5.5V
9.5V
VAR R IN
UT-23
N.C
MONI V IN
VIDEO 1 OUT
Y 1 OUT
C 1 OUT
S-SW1 OUT
VIDEO 2 OUT
Y 2 OUT
C 2 OUT
VIDEO 3 OUT
S-SW2 OUT
Y 3 OUT
C 3 OUT
S-SW3 OUT
9.5V
MONI C IN
MONI Y IN
E
UT-22
30
FRONT L OUT
FRONT R OUT
LE
RE
REAR R OUT
REAR L OUT
UT-11
UT-9
UT-38
UT-35
CAD
EY1101

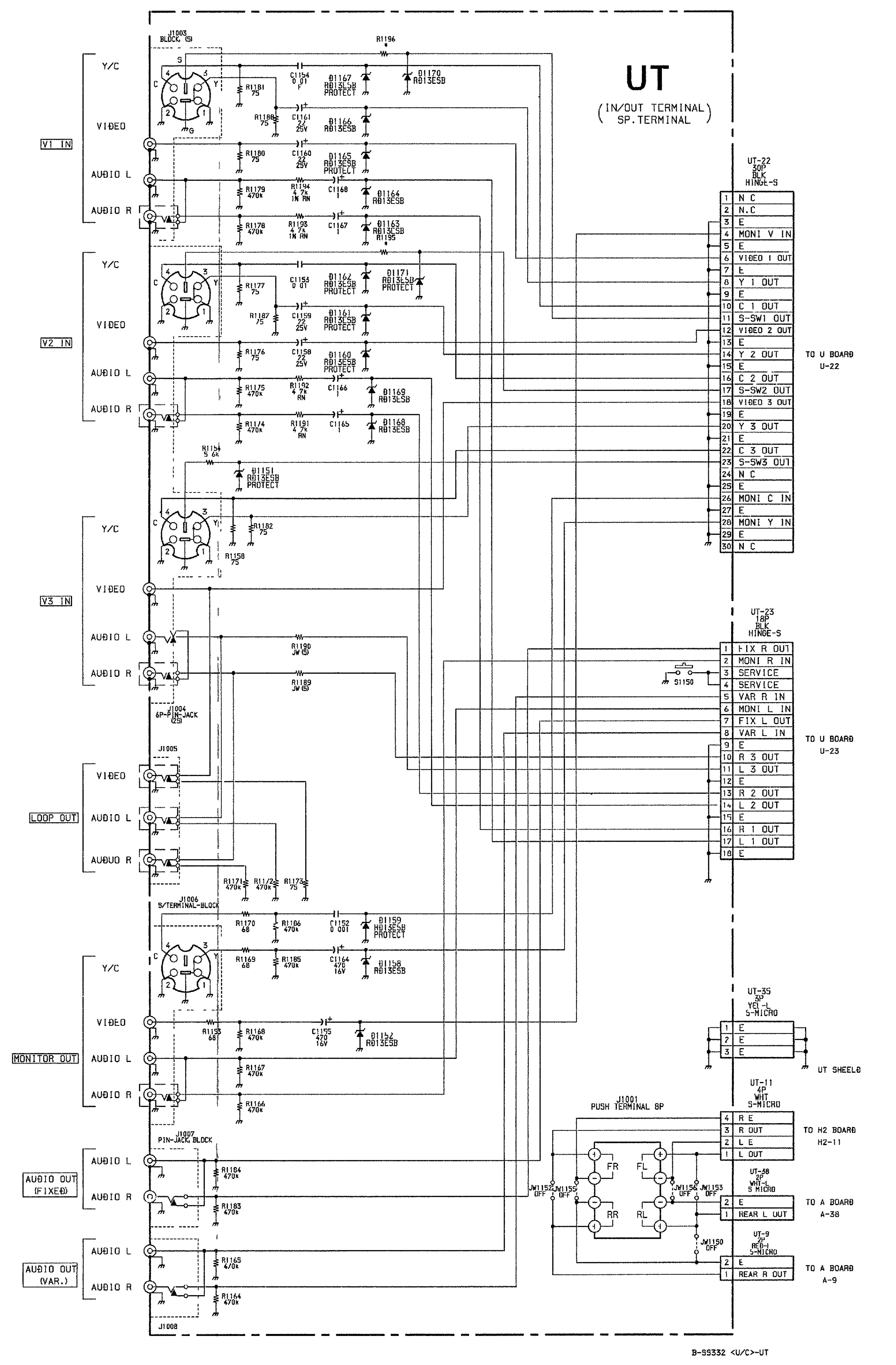

U
(AUDIO IN/OUT)
(VIDEO IN/OUT)
TO P4 BOARD P4-32
TO UT BOARD UT-22
TO UT BOARD UT-23
TO A BOARD A-12
TO A BOARD A-13
TO H2 BOARD H2-16
IC1002 CXA1545S SELECT SW
IC1011 AP1402C AUDIO AMP
B-SS326.<U/C>-U..

U Board IC002 CXA1545S

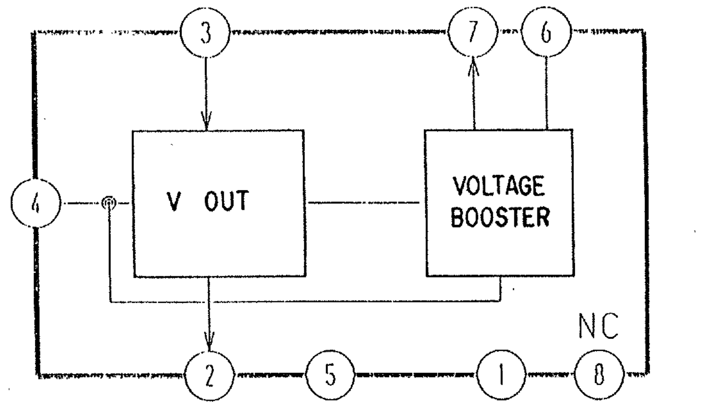

TV
EV
V1
V2
V3
Y1
Y2
Y3
C1
C2
C3
L TV
L EV
L V1
L V2
L V3
R TV
R EV
R V1
R V2
R V3
Vcc
GND
V OUT3
V OUT2
V OUT1
Y IN1
Y OUT1
TRAP 1
C IN1
C OUT1
Y OUT2
TRAP 2
C OUT2
BIAS
L OUT1
L OUT2
L OUT3
R OUT1
R OUT2
R OUT3
SCL
SDA
ADR
S1
S2
S3
MUTE

— U Board —

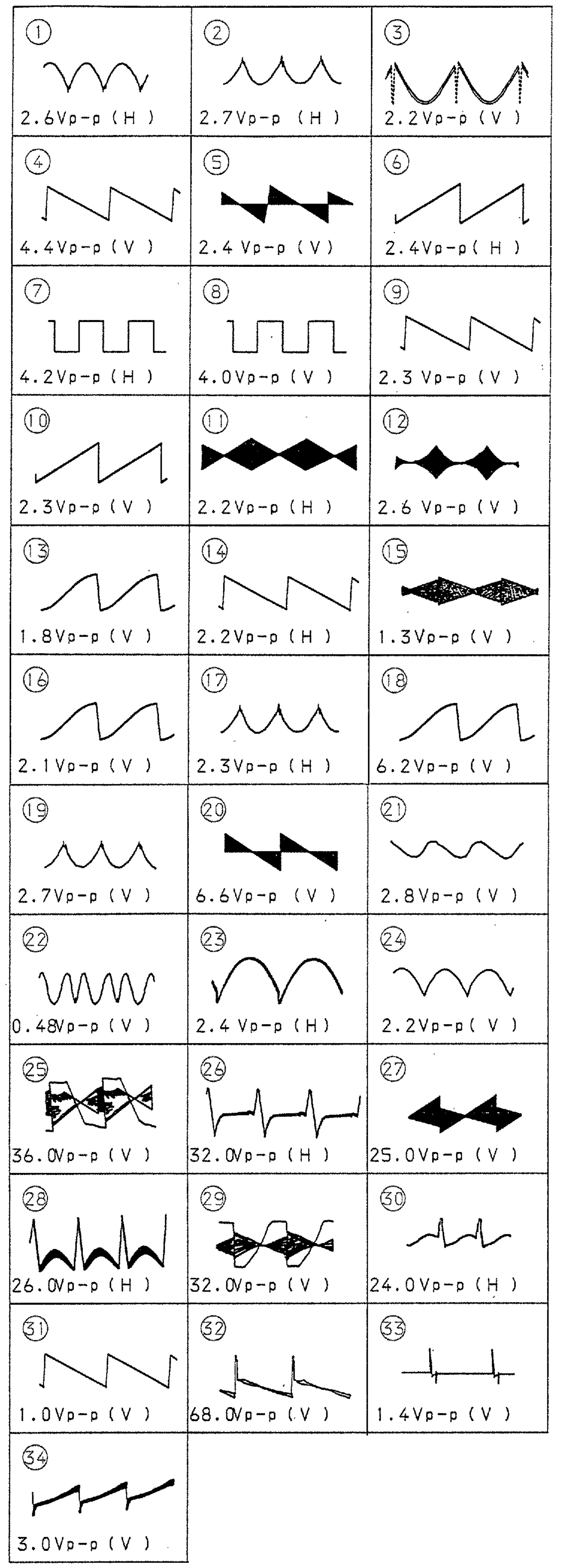

①
0.8Vp-p (H)
②
1.8Vp-p (H)
③
1.8Vp-p (H)
④
2.0Vp-p (H)
⑤
1.8Vp-p (H)
⑥
1.8Vp-p (H)
⑦
1.8Vp-p (H)

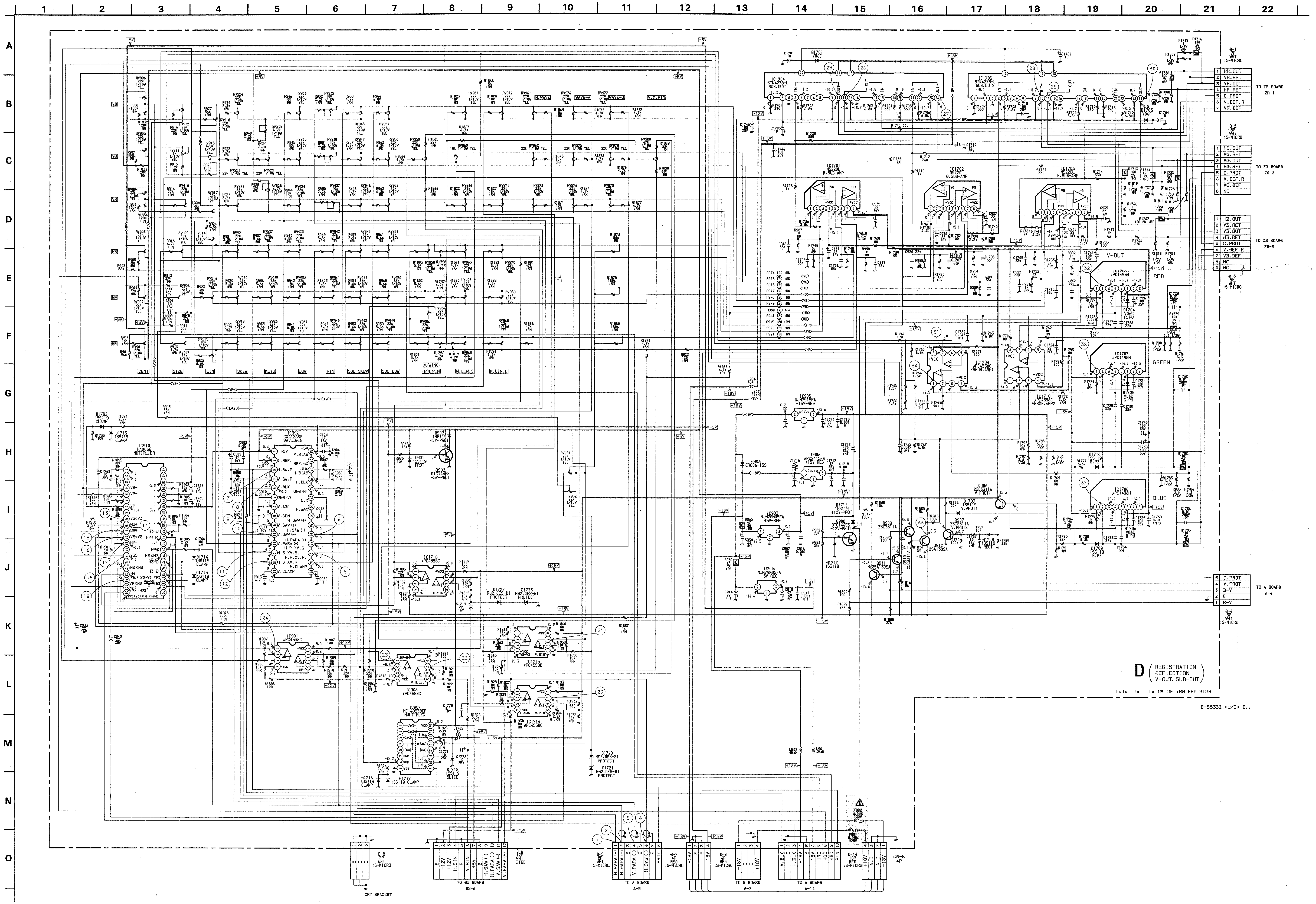

UT
(IN/OUT TERMINAL)
(SP.TERMINAL)
V1 IN
V2 IN
V3 IN
LOOP OUT
MONITOR OUT
AUDIO OUT (FIXED)
AUDIO OUT (VAR.)
TO U BOARD U-22
TO U BOARD U-23
UT SHEELD
TO H2 BOARD H2-11
TO A BOARD A-38
TO A BOARD A-9
J1001 PUSH TERMINAL 8P
B-SS332 <U/C>-UT

D Board IC1706, 1707, 1708 µPC1498H


3
7
6
4
V OUT
VOLTAGE BOOSTER
NC
2
5
1
8

— D Board —




1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
IC1704 STK4278-L SUB.OUT1
IC1705 STK4278-L SUB.OUT2
IC1701 M5220L R.SUB-AMP
IC1702 M5220L G.SUB-AMP
IC1703 M5220L B.SUB-AMP
TO ZR BOARD ZR-1
TO ZG BOARD ZG-2
TO ZB BOARD ZB-3
V-OUT
IC1706 µPC1498H
RED
IC1707 µPC1498H
GREEN
IC1708 µPC1498H
BLUE
TO A BOARD A-4
IC910 PA0336 MULTIPLIER
IC902 CXA1036P WAVE.GEN
IC907 MC14053BCP MULTIPLEX
IC901 µPC4558C
IC908 µPC4558C
IC1718 µPC4558C
IC1715 µPC4558C
IC1714 µPC4558C
IC905 NJM7915FA -15V-REG
IC906 µPC2418FA +15V-REG
IC903 NJM78M05FA +5V-REG
IC904 NJM79M05FA -5V-REG
IC1709 µPC4558C ERROR.AMP1
IC1710 µPC4558C ERROR.AMP2
CENT
SIZE
LIN
SKEW
KEYS
BOW
PIN
SUB SKEW
SUB BOW
V/H.PIN
H.LIN.R
H.LIN.L
W.WAVE
WAVE-A
WAVE-U
V.H.PIN
CRT BRACKET
TO GS BOARD GS-6
TO A BOARD A-5
TO G BOARD G-7
TO A BOARD A-14
CN-8 4P

D (REGISTRATION
DEFLECTION
V-OUT, SUB-OUT)

hote Limit is 1% OF :RN RESISTOR

B-SS332.<U/C>-D..

D

[REGISTRATION, DEFLECTION, V-OUT, SUB-OUT]

— D Board —

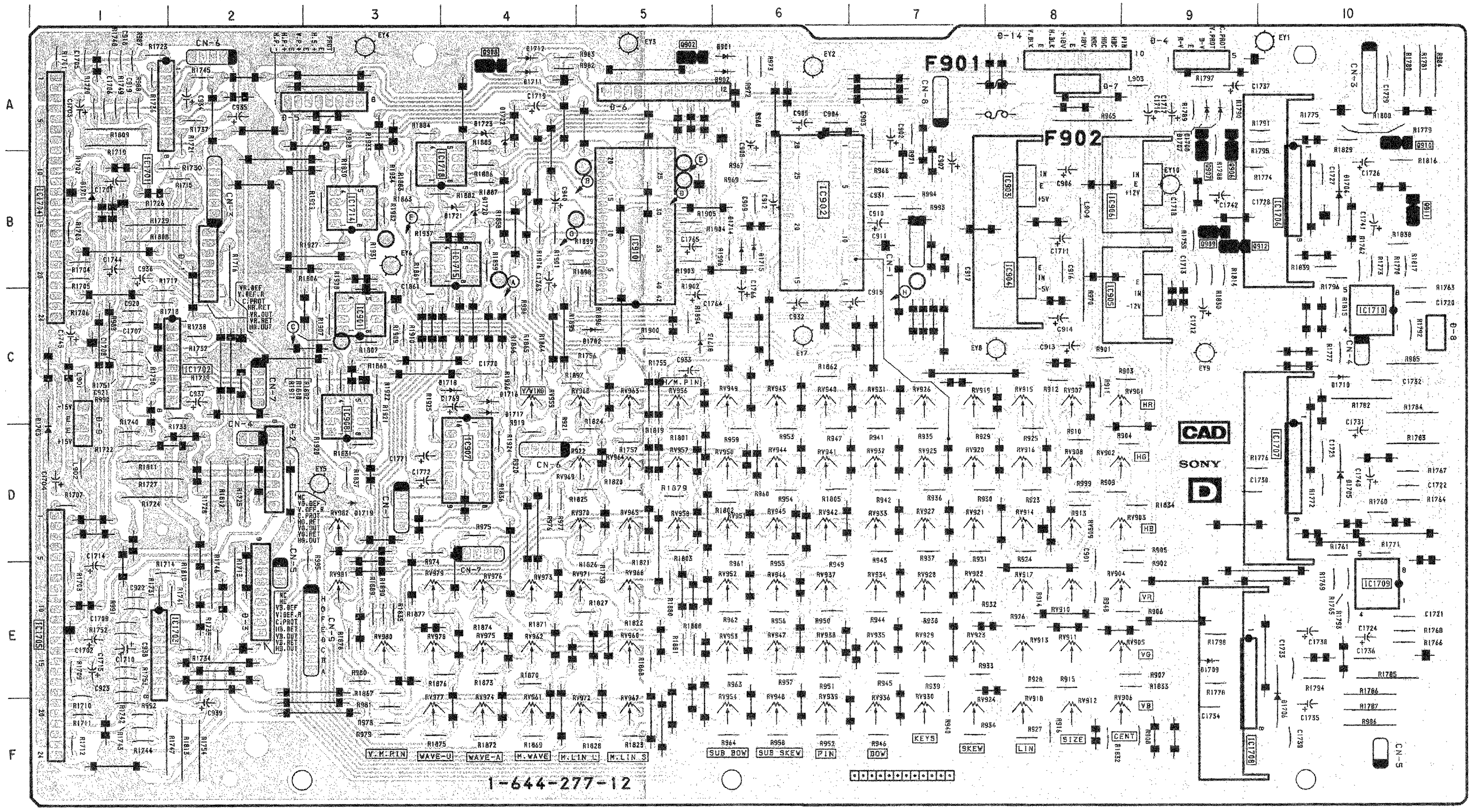
IC	
IC901	B-3
IC902	B-6
IC903	A-8
IC904	B-8
IC905	B-9
IC906	A-9
IC907	C-4
IC908	C-3
IC910	B-5
IC1701	A-1
IC1702	C-2
IC1703	E-1
IC1704	B-1
IC1705	E-1
IC1706	B-10
IC1707	D-10
IC1708	E-9
IC1709	D-10
IC1710	B-10
IC1714	B-3
IC1715	B-4
IC1718	A-4

TRANSISTOR	
Q902	A-5
Q906	A-9
Q907	A-9
Q908	A-4
Q909	B-9
Q910	A-11
Q911	B-11
Q912	B-9

DIODE	
D901	A-6
D902	A-6
D1701	B-1
D1702	C-5
D1703	C-1
D1704	B-10
D1705	D-10
D1706	E-10
D1707	A-9
D1708	A-9
D1709	E-9
D1710	C-10
D1711	A-4
D1712	A-4
D1713	C-5
D1714	B-6
D1715	B-6
D1716	C-4
D1717	C-4
D1718	C-4
D1720	B-4
D1721	B-4
D1722	A-4
D1723	A-4

VARIABLE RESISTOR	
RV901	C-9
RV902	D-9
RV903	D-9
RV904	D-9
RV905	E-9
RV906	E-9
RV907	C-8
RV908	D-8
RV909	D-8
RV910	D-8
RV911	E-8
RV912	E-8
RV913	E-8
RV914	D-8
RV915	C-8
RV916	D-8
RV917	E-8
RV918	E-8
RV919	C-7
RV920	D-7
RV921	D-7
RV922	D-7
RV923	E-7
RV924	E-7
RV925	D-7
RV926	C-7
RV927	D-7
RV928	D-7
RV929	E-7
RV930	E-7
RV931	C-7
RV932	D-7
RV933	D-7
RV934	D-7
RV935	E-7
RV936	E-7
RV937	D-6
RV938	E-6
RV939	E-6
RV940	C-6
RV941	D-6
RV942	D-6
RV943	C-6
RV944	D-6
RV945	D-6
RV946	D-6
RV947	E-6
RV948	E-6
RV949	C-6
RV950	D-6
RV951	D-6
RV952	E-6
RV953	E-6
RV954	E-6
RV956	C-5
RV957	D-5
RV958	D-5
RV959	C-4
RV960	E-5
RV961	E-4
RV962	E-4
RV963	C-5
RV964	D-5
RV965	D-5
RV966	D-5
RV967	E-5
RV968	C-5
RV969	D-5
RV970	D-5
RV971	D-5
RV972	E-5
RV973	D-4
RV974	E-4
RV975	E-4
RV976	D-4
RV978	E-3
RV979	D-3
RV980	E-3
RV981	D-3
RV982	D-3

— D Board —



G [POWER SUPPLY]

— G Board —

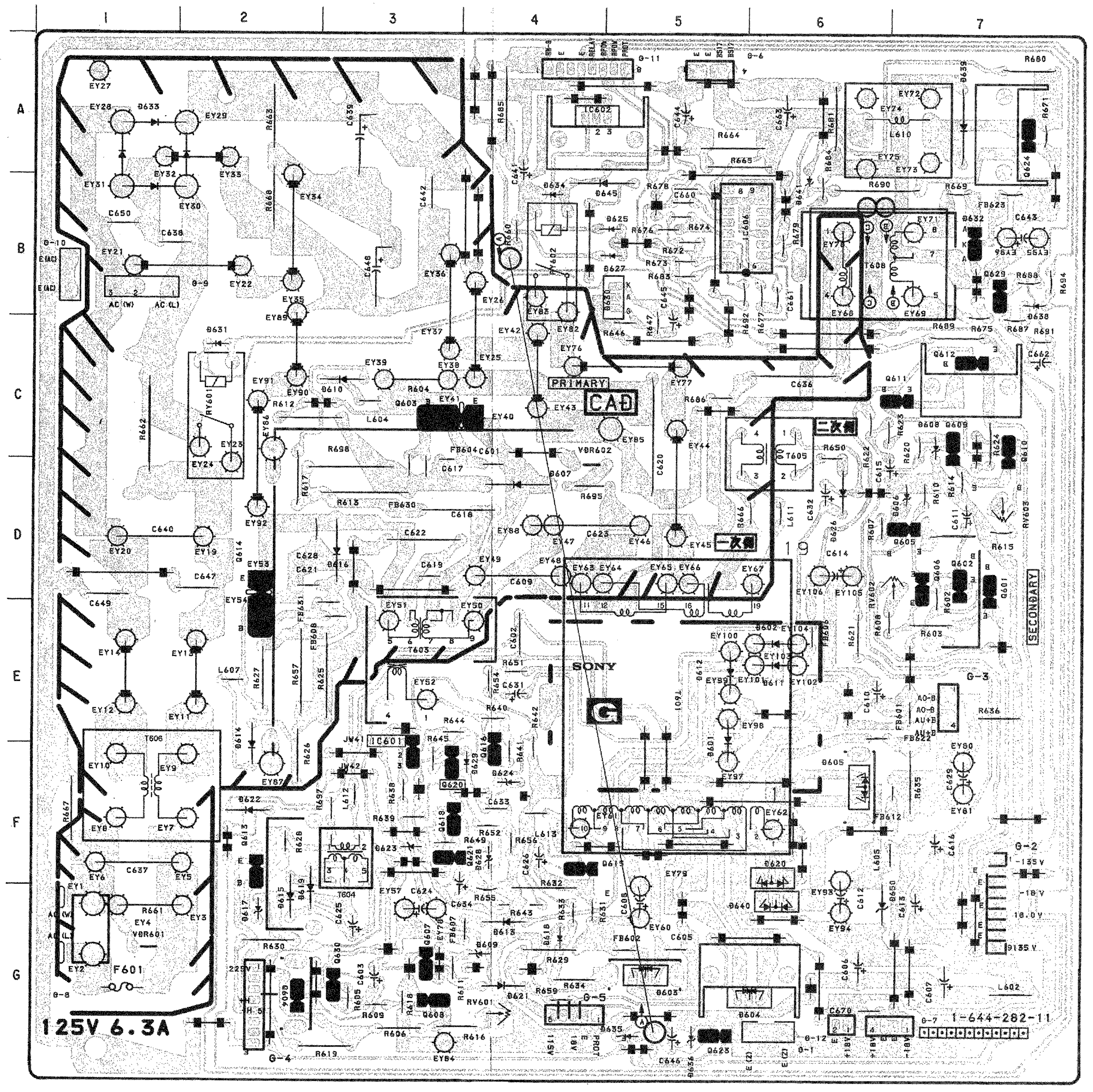
IC	
IC601	E-3
IC602	A-4
IC606	B-6

TRANSISTOR	
Q601	D-7
Q602	D-7
Q603	C-3
Q604	G-2
Q605	D-7
Q606	D-7
Q607	G-3
Q608	G-3
Q609	C-7
Q610	C-7
Q611	C-7
Q612	C-7
Q613	F-2
Q614	E-2
Q615	F-4
Q616	F-4
Q618	F-3
Q620	F-3
Q621	F-3
Q623	H-5
Q624	A-8
Q629	B-7
Q630	G-3

DIODE	
D601	E-5
D602	E-6
D603	G-5
D604	G-6
D605	F-6
D606	D-7
D607	D-4
D608	C-7
D609	G-4
D610	C-3
D611	E-6
D612	E-5
D613	G-4
D614	F-2
D615	G-2
D616	D-3
D617	G-2
D618	G-4
D619	G-2
D620	F-6
D621	G-4
D622	F-2
D623	F-3
D624	F-4
D625	B-5
D626	D-6
D627	B-5
D628	F-4
D629	F-4
D630	B-5
D631	C-2
D632	B-7
D633	A-1
D634	B-4
D635	H-5
D636	H-5
D638	B-8
D639	A-7
D640	G-6
D645	B-5
D650	G-7

VARIABLE RESISTOR	
RV601	G-4
RV602	D-7
RV603	D-7

— G Board —

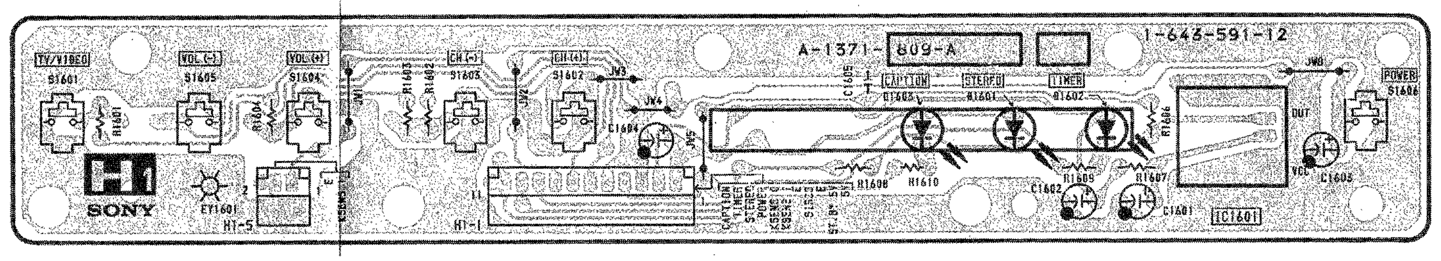

1
2
3
4
5
6
7
A
B
C
D
E
F
G
PRIMARY
CAD
二次側
一次側
SECONDARY
SONY
G
125V 6.3A
1-644-282-11
G-2
G-3
G-4
G-5
-135 V
-18 V
18.0 V
135 V

H1 [USER CONTROL]

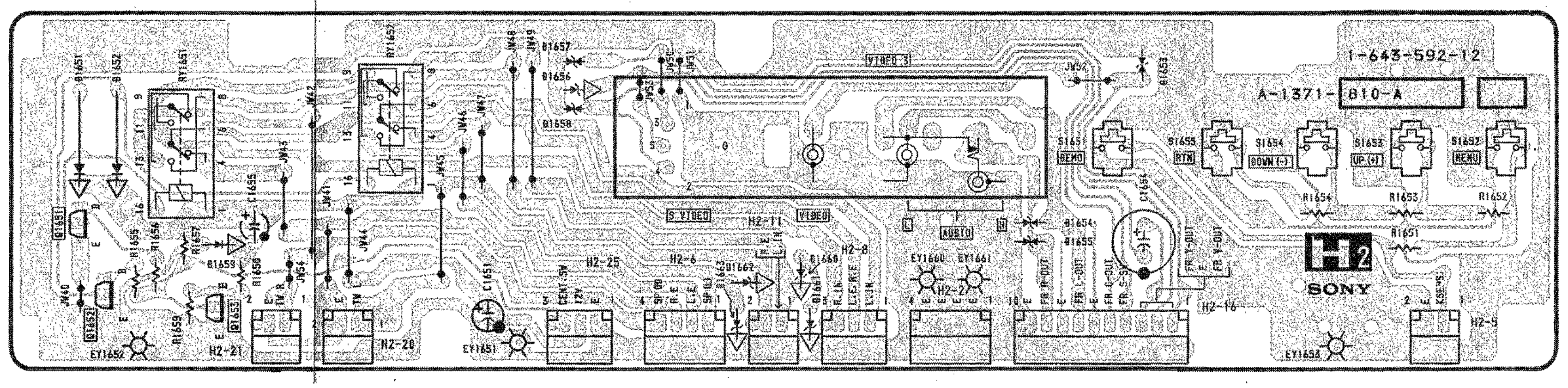
H2 [USER CONTROL]

DS [SIN. WAVE, GEN]

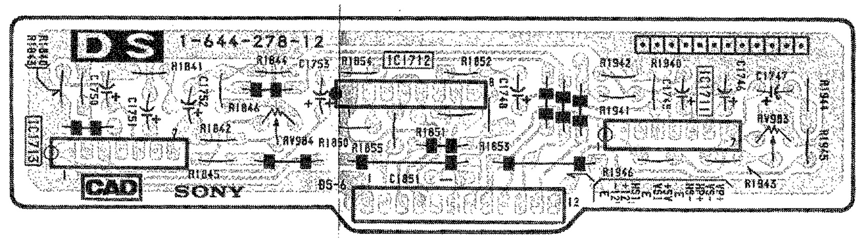
— H1 Board —

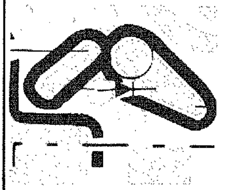

A-1371-809-A
1-643-591-12
H1
SONY
IC1601

— H2 Board —

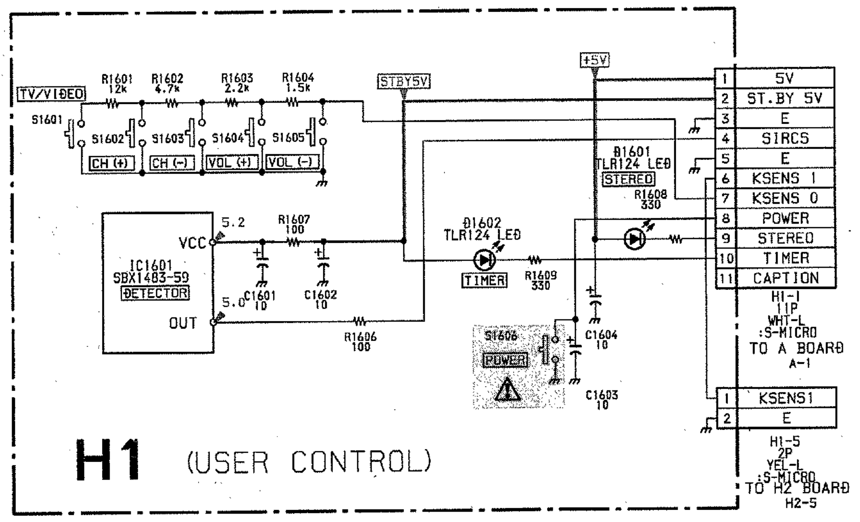

1-643-592-12
A-1371-810-A
H2
SONY

— DS Board —

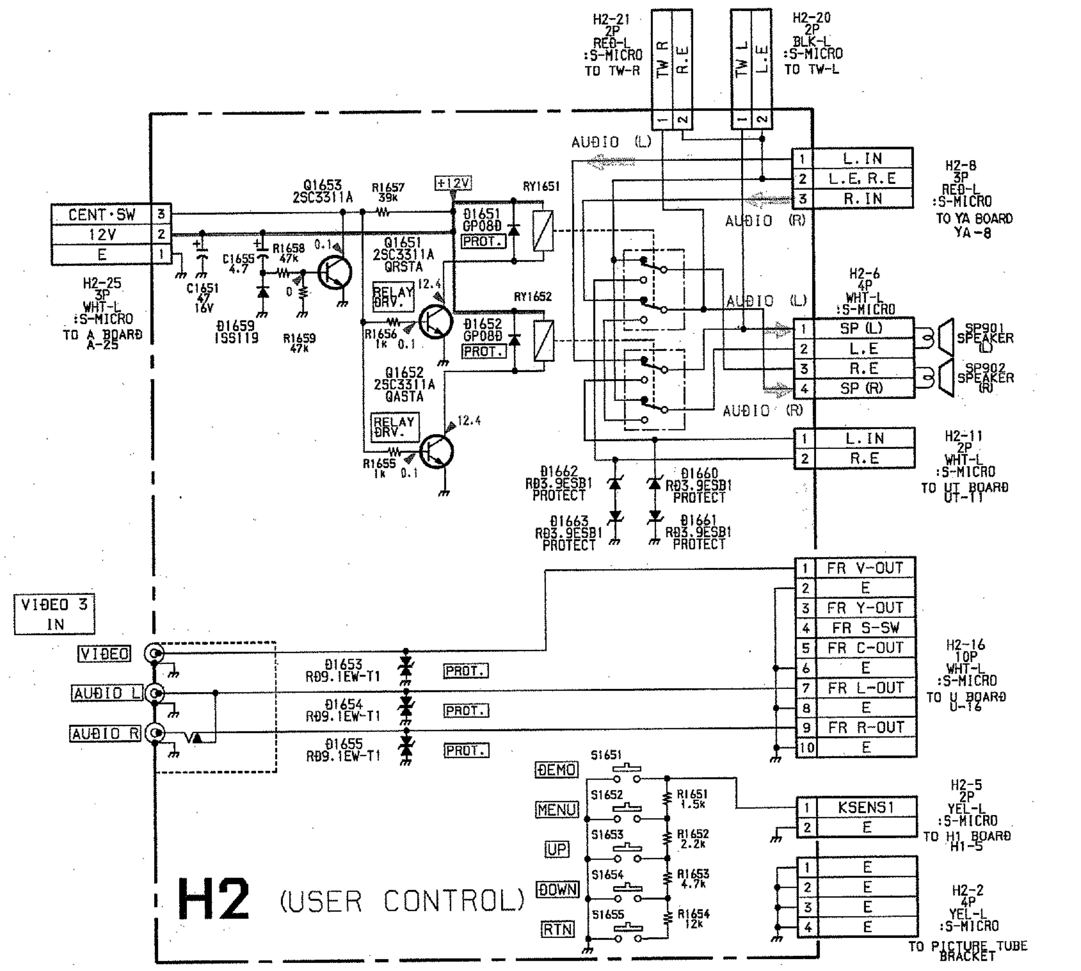

DS
1-644-278-12
IC1712
CAD
SONY



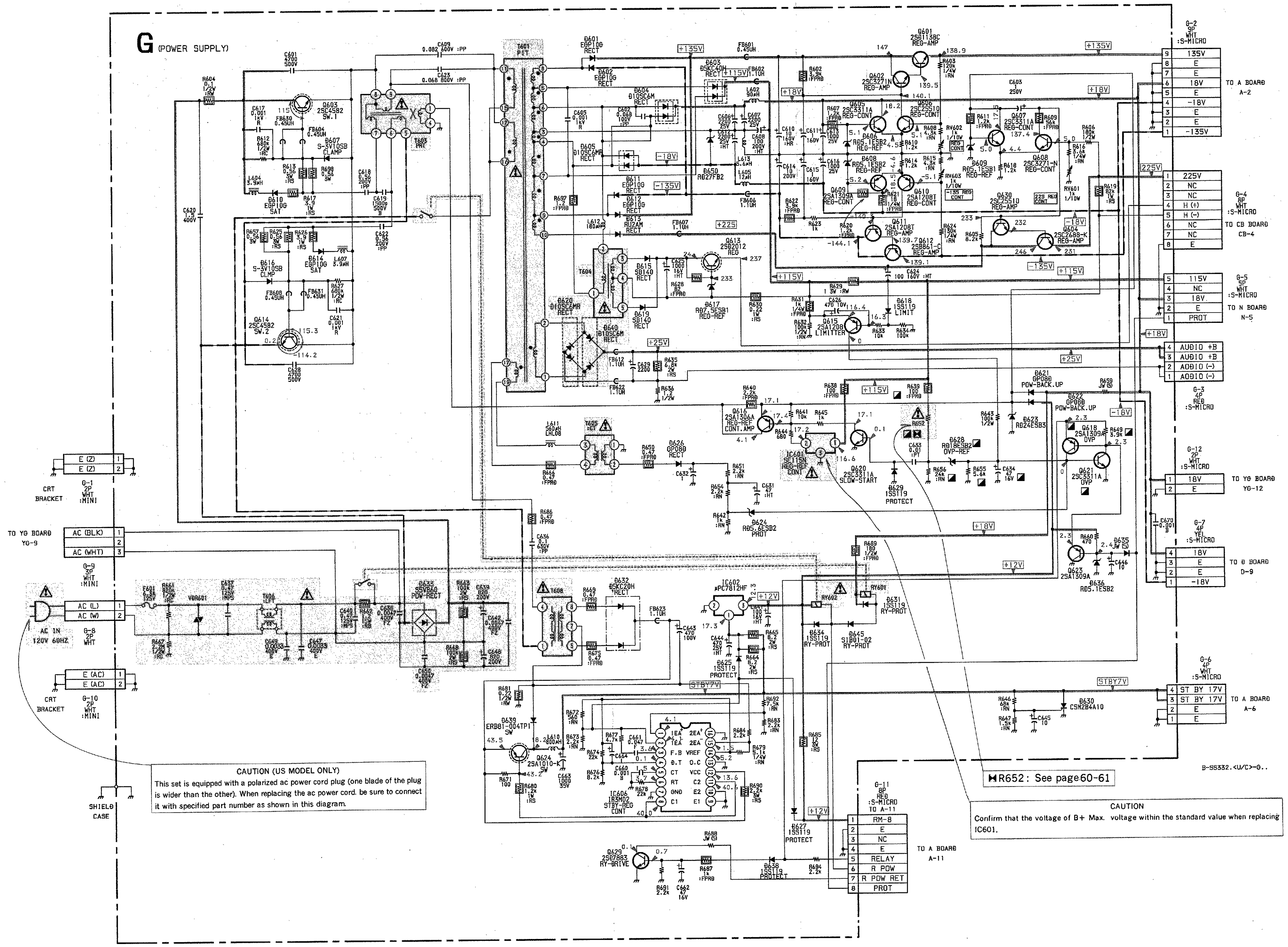
NOTE:
The circuit indicated as left contains high voltage of over 600 Vp-p. Care must be paid to prevent an electric shock in inspection or repairing.


H1 (USER CONTROL)
TV/VIDEO
CH (+)
CH (-)
VOL (+)
VOL (-)
IC1601 SBX1485-50 DETECTOR
TIMER
POWER
STEREO
5V
ST.BY 5V
E
SIRCS
KSENS 1
KSENS 0
CAPTION
KSENS1
H1-1 11P WHT-L :S-MICRO TO A BOARD A-1
H1-5 2P YEL-L :S-MICRO TO H2 BOARD H2-5

B-SS332.<U/C>-H1.


H2 (USER CONTROL)
CENT-SW
12V
E
AUDIO (L)
AUDIO (R)
L.IN
L.E.R.E
R.IN
SP (L)
L.E
R.E
SP (R)
SP901 SPEAKER (L)
SP902 SPEAKER (R)
VIDEO 3 IN
VIDEO
AUDIO L
AUDIO R
FR V-OUT
FR Y-OUT
FR S-SW
FR C-OUT
FR L-OUT
FR R-OUT
DEMO
MENU
UP
DOWN
RTN
KSENS1
TO YA BOARD YA-8
TO UT BOARD UT-11
TO U BOARD U-16
TO H1 BOARD H1-5
TO PICTURE TUBE BRACKET

B-SS332.<U/C>-H2.


G (POWER SUPPLY)
T601 PIT
IC601 STR-S6709 REG-REF CONT
IC602 µPC7812HF
IC604 1SS119
AC IN 120V 60HZ
TO Y0 BOARD Y0-9
AC (BLK)
AC (WHT)
AC (L)
AC (W)
E (Z)
E (AC)
CRT BRACKET
SHIELD CASE
TO A BOARD A-2
TO CB BOARD CB-4
TO N BOARD N-5
TO Y0 BOARD Y0-12
TO D BOARD D-9
TO A BOARD A-6
TO A BOARD A-11
135V
18V
-18V
-135V
225V
115V
AUDIO +B
AUDIO (-)
ST BY 17V
RM-8
RELAY
R POW
R POW RET
PROT

CAUTION (US MODEL ONLY)

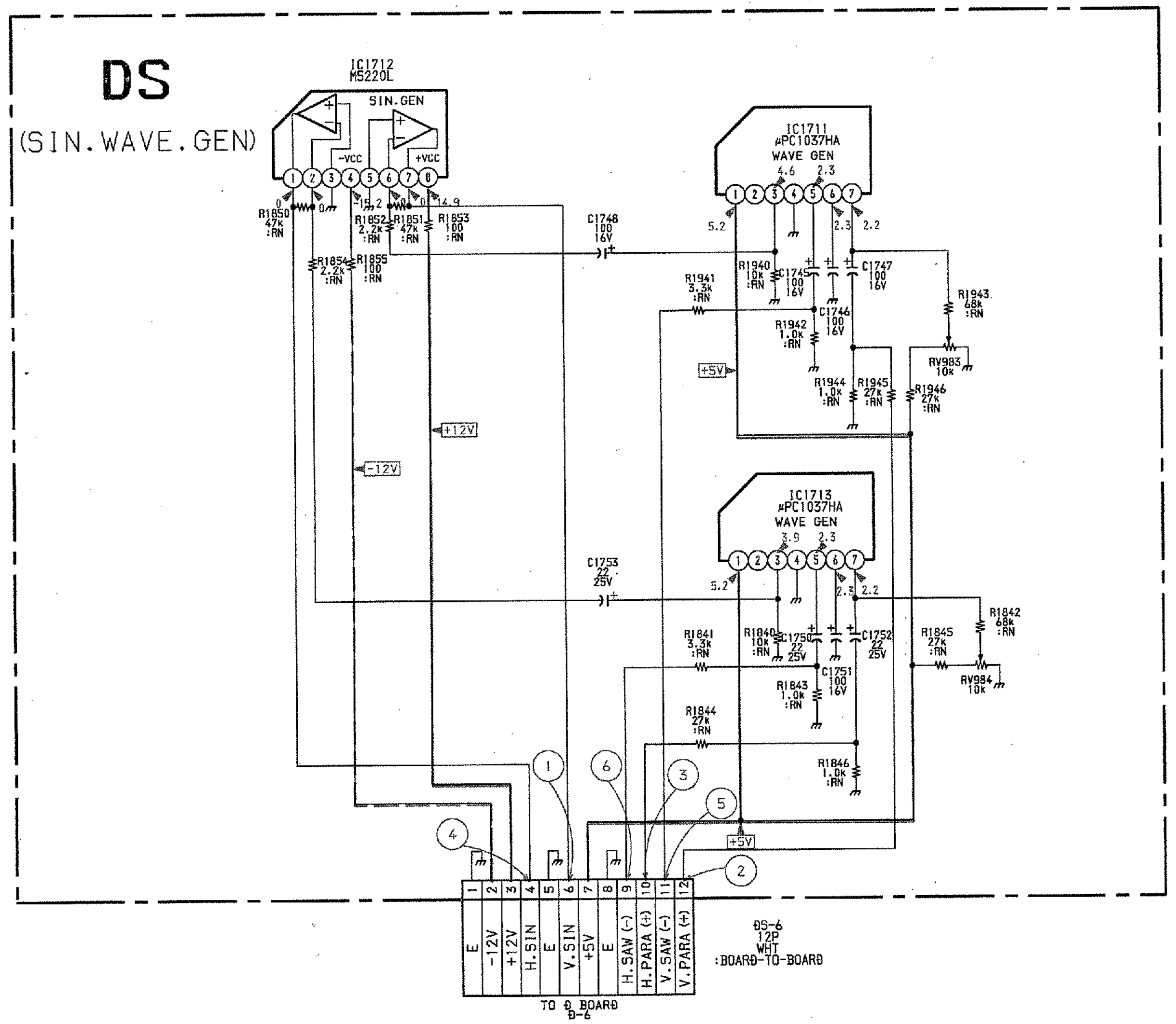
This set is equipped with a polarized ac power cord plug (one blade of the plug is wider than the other). When replacing the ac power cord. be sure to connect it with specified part number as shown in this diagram.

R652: See page60-61

CAUTION

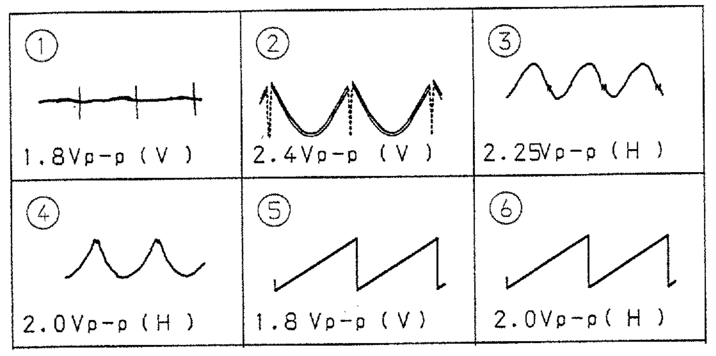
Confirm that the voltage of B+ Max. voltage within the standard value when replacing IC601.

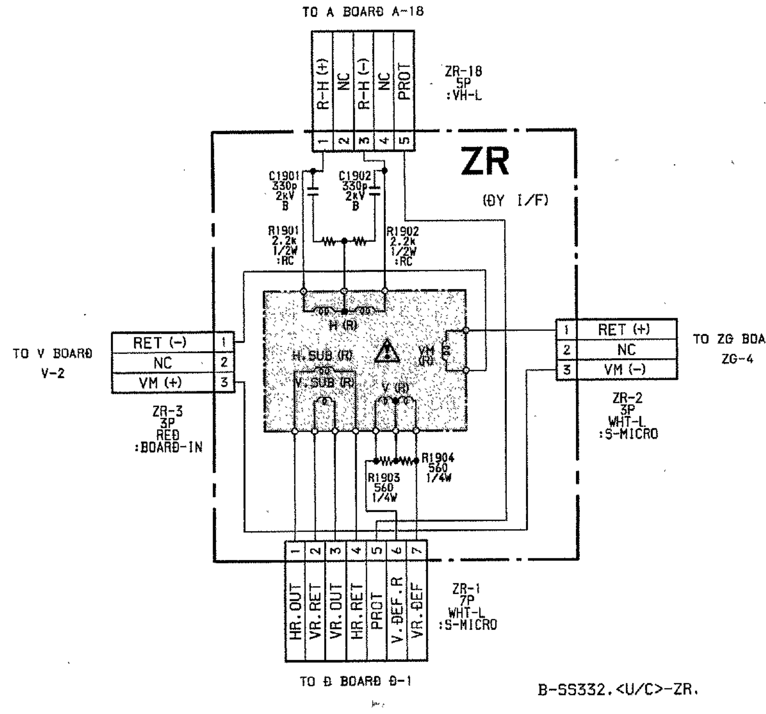
B-SS332.<U/C>-G.

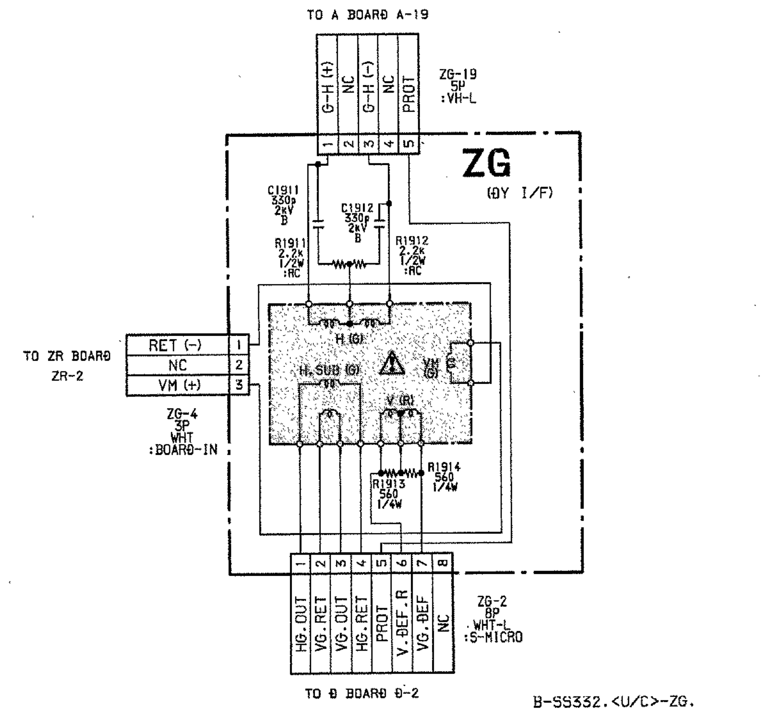

DS
(SIN.WAVE.GEN)
IC1712 M5220L SIN.GEN
IC1711 µPC1037HA WAVE GEN
IC1713 µPC1037HA WAVE GEN
-E
-12V
H.SIN
E
V.SIN
+5V
E
H.PARA (-)
H.SAW (-)
V.SAW (-)
V.PARA (+)
DS-6 12P WHT :BOARD-TO-BOARD
TO G BOARD G-6

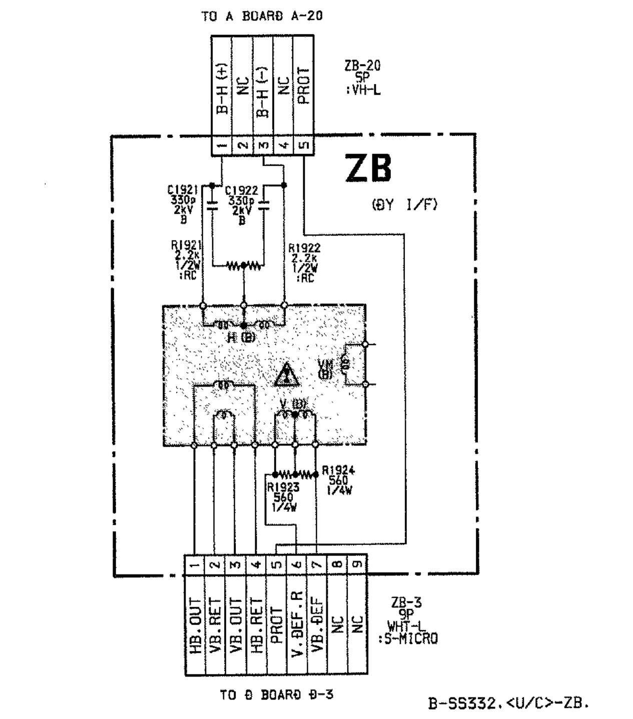
B-SS332.<U/C>-DS.

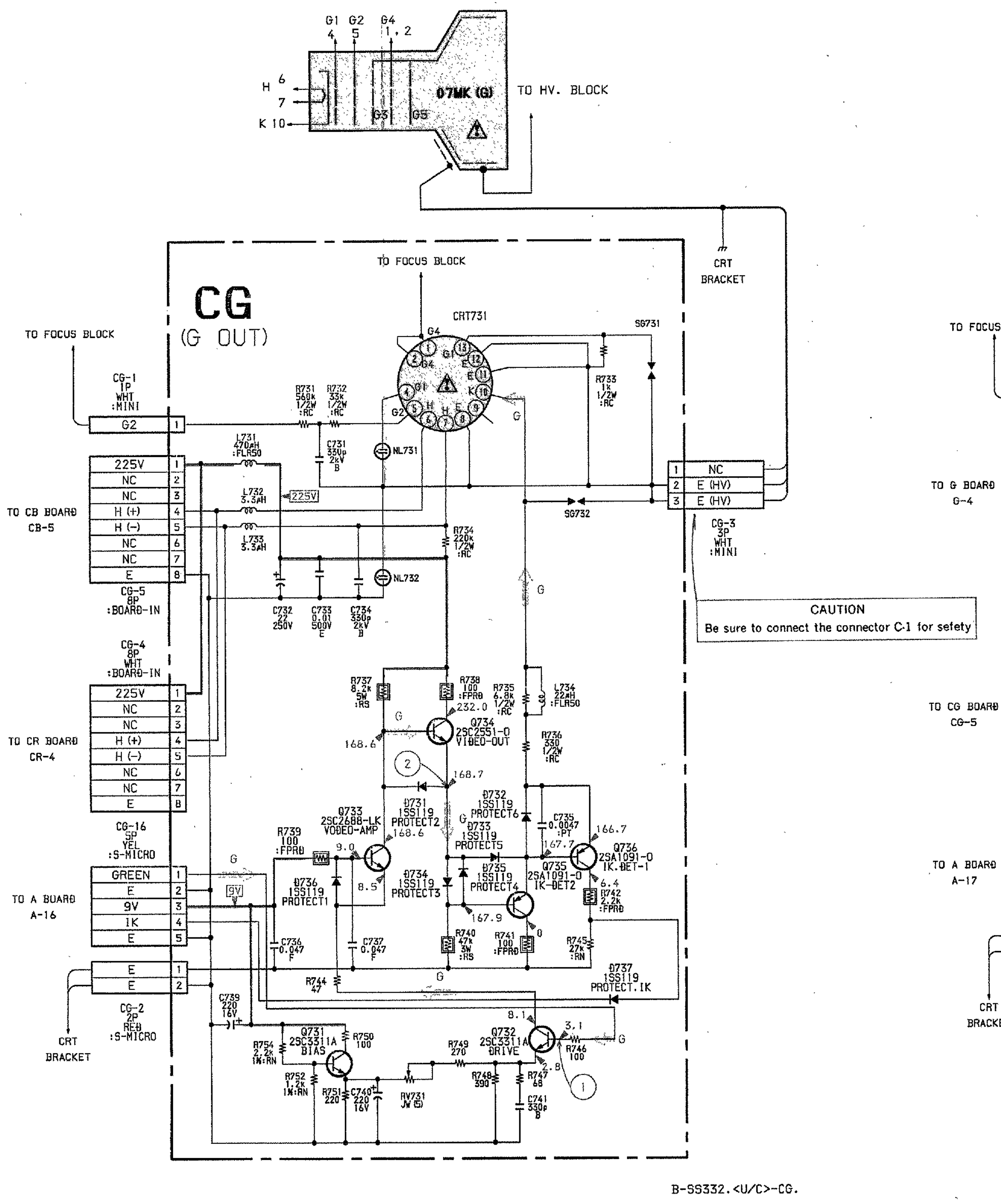
— DS Board —




TO A BOARD A-18
ZR
(BY I/F)
TO V BOARD V-2
TO ZG BOARD ZG-4
TO G BOARD G-1
RET (-)
NC
VM (+)
RET (+)
VM (-)
B-SS332.<U/C>-ZR.

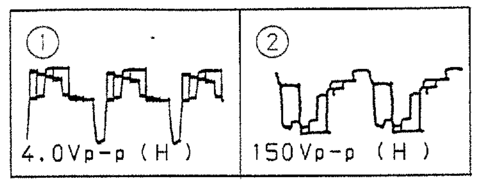

TO A BOARD A-19
ZG
(BY I/F)
TO ZR BOARD ZR-2
TO G BOARD G-2
B-SS332.<U/C>-ZG.


TO A BOARD A-20
ZB
(BY I/F)
TO G BOARD G-3
B-SS332.<U/C>-ZB.

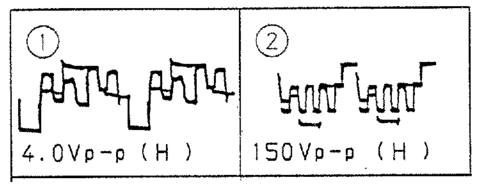

07MK (G)
TO HV. BLOCK
TO FOCUS BLOCK
CG
(G OUT)
CRT7731
TO CB BOARD CB-5
TO CR BOARD CR-4
TO A BOARD A-16
CRT BRACKET
B-SS332.<U/C>-CG.

CAUTION
Be sure to connect the connector C-1 for sefety

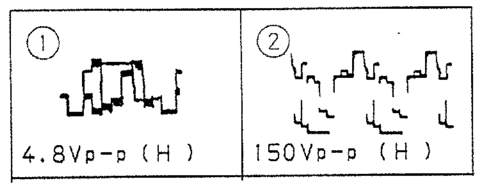
— CG Board —

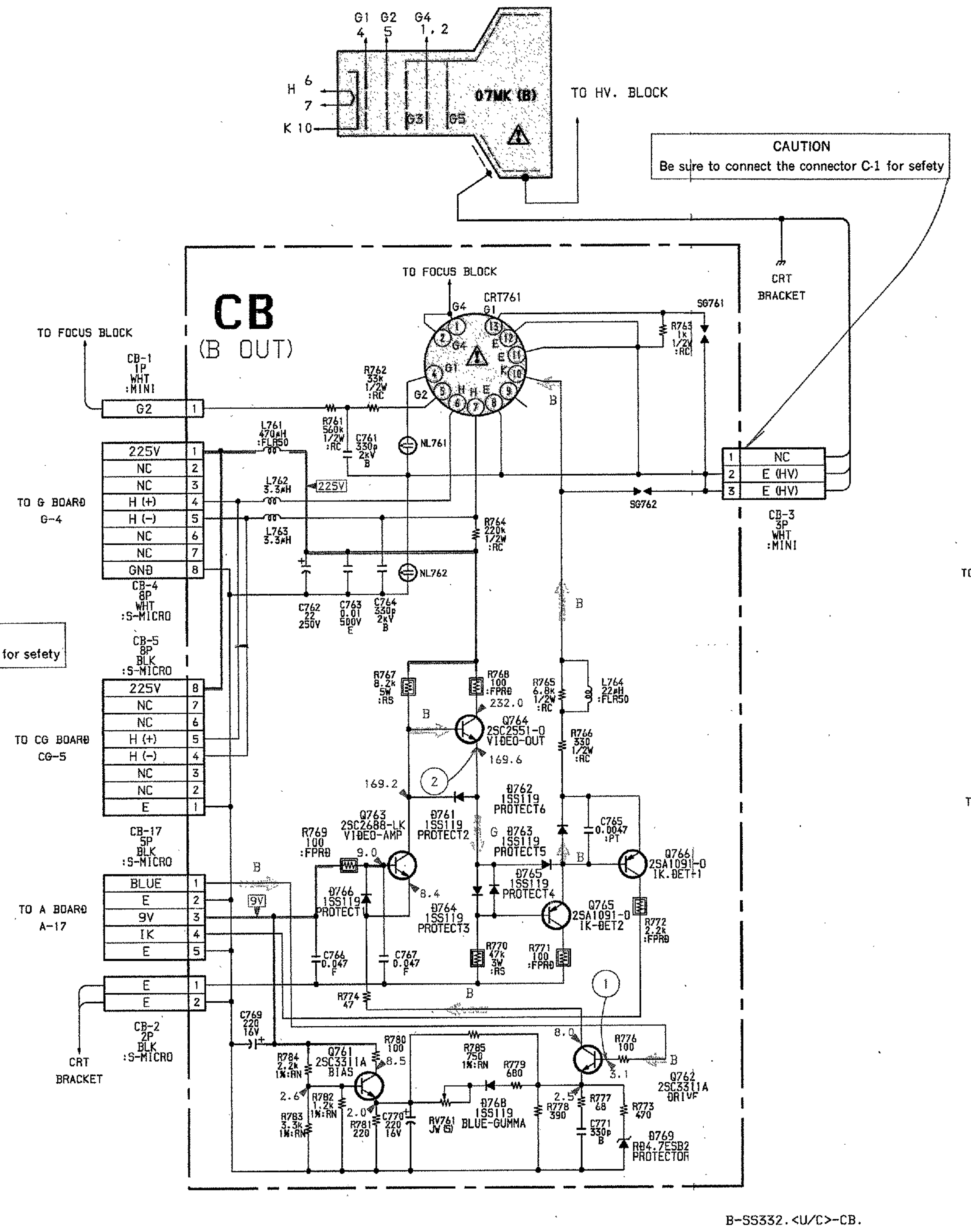


— CB Board —

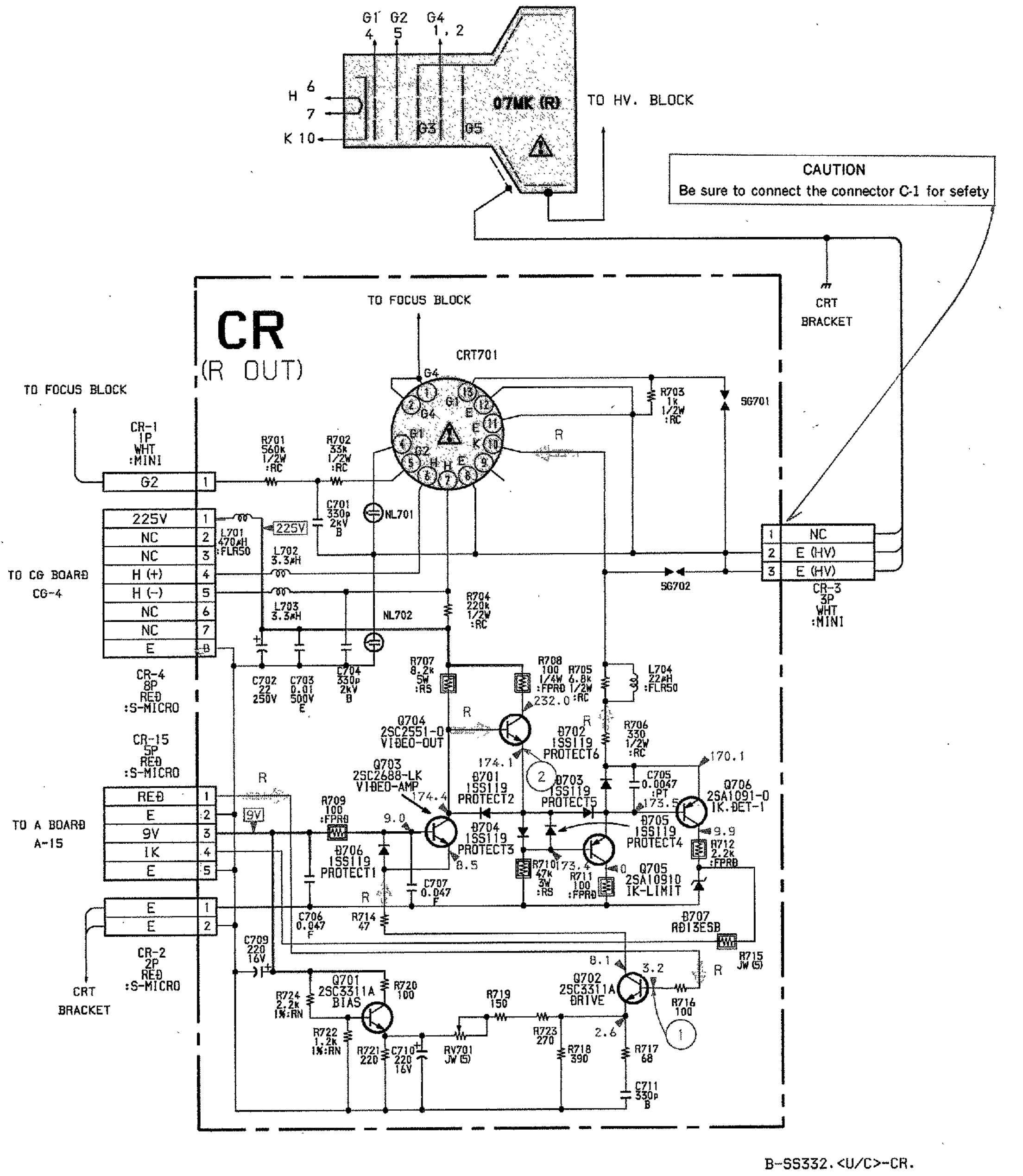


— CR Board —

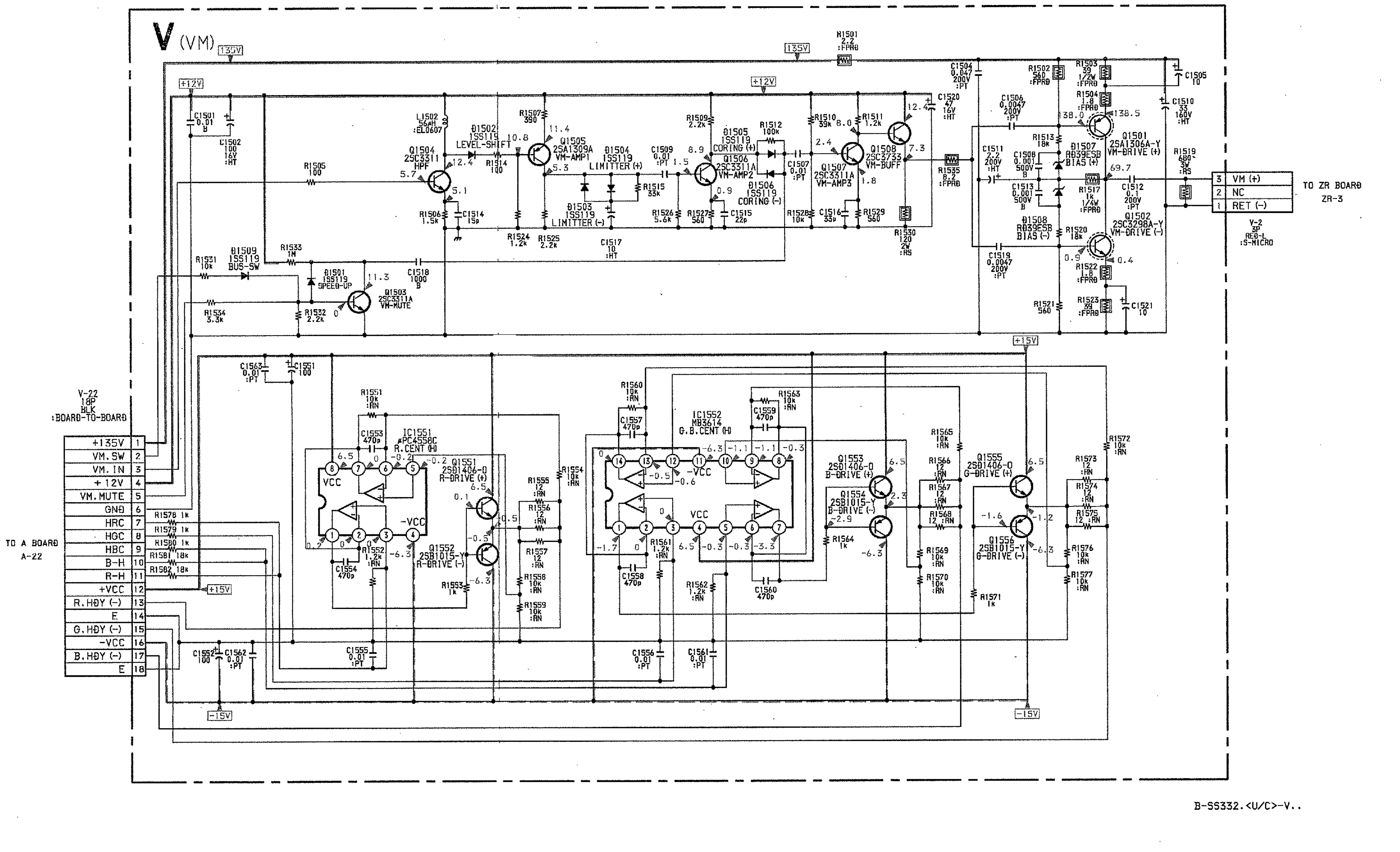



07MK (B)
TO HV. BLOCK
TO FOCUS BLOCK
CB
(B OUT)
CRT761
TO G BOARD G-4
TO CG BOARD CG-5
TO A BOARD A-17
CRT BRACKET
B-SS332.<U/C>-CB.

CAUTION
Be sure to connect the connector C-1 for sefety

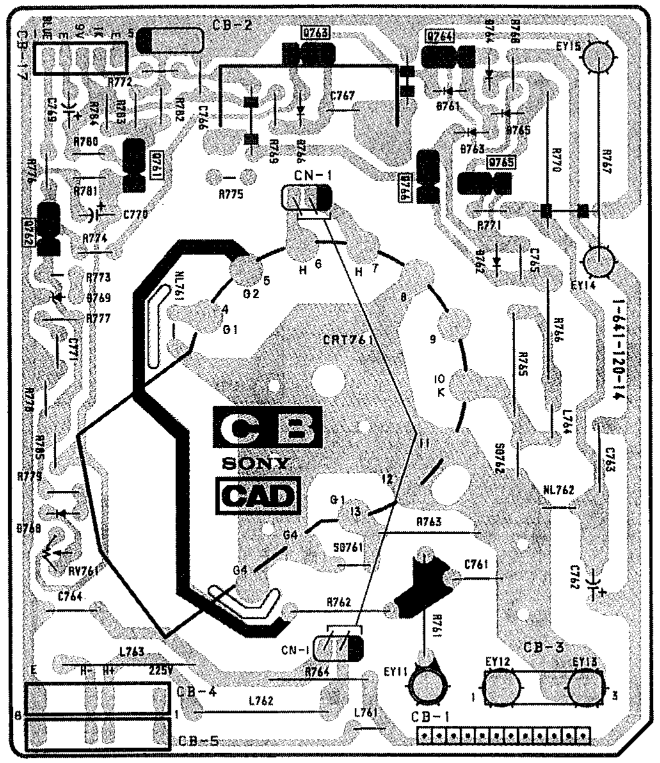

07MK (R)
TO HV. BLOCK
TO FOCUS BLOCK
CR
(R OUT)
CRT701
TO CG BOARD CG-4
TO A BOARD A-15
CRT BRACKET
B-SS332.<U/C>-CR.

CAUTION
Be sure to connect the connector C-1 for sefety

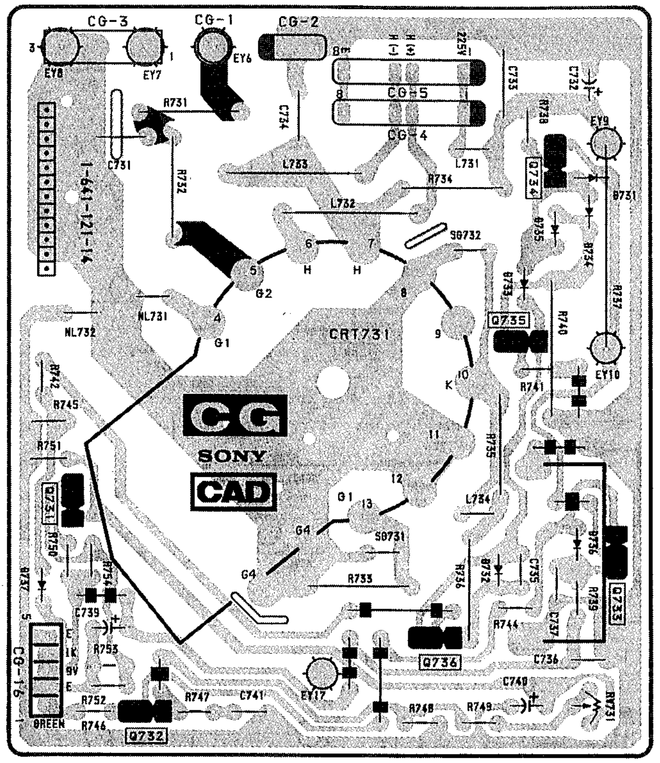

V (VM)
TO A BOARD A-22
TO ZR BOARD ZR-3
+135V
VM.SW
VM.IN
+12V
VM.MUTE
GND
HRC
HGC
HBC
B-H
R-H
+VCC
R.HDY (-)
E
G.HDY (-)
-VCC
B.HDY (-)
E
B-SS332.<U/C>-V..

CB [B OUT] **CG** [G OUT] **CR** [R OUT] **V** [VM] **ZB** [DY I/F] **ZG** [DY I/F] **ZR** [DY I/F]

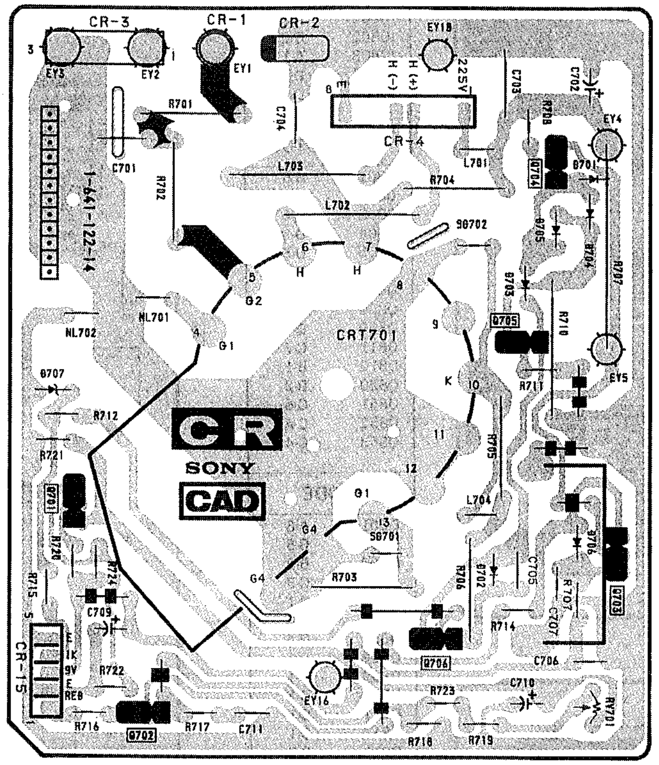
— CB Board —


CB
SONY
CAD
CRT761
1-641-120-14
CB-1
CB-2
CB-3
CB-4
CB-5
CB-17
CN-1

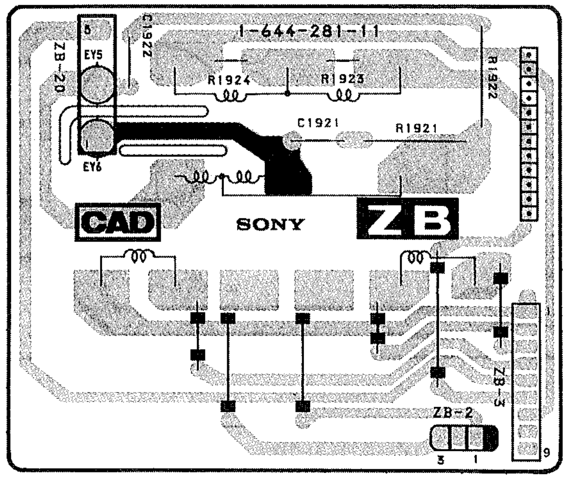
— CG Board —


CG
SONY
CAD
CRT731
1-641-121-14
CG-1
CG-2
CG-3
CG-4
CG-5
CG-16

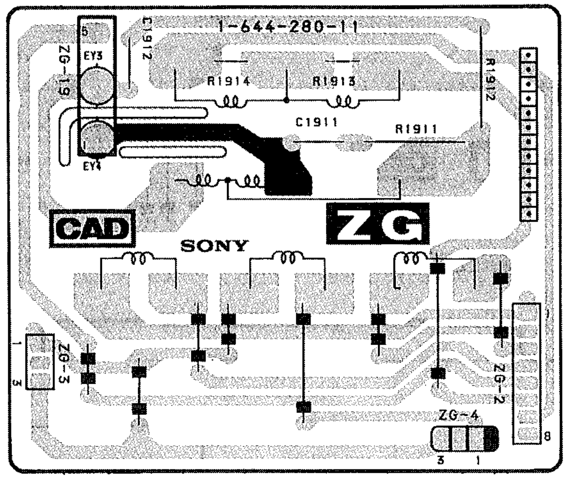
— CR Board —


CR
SONY
CAD
CRT701
1-641-122-14
CR-1
CR-2
CR-3
CR-4
CR-15

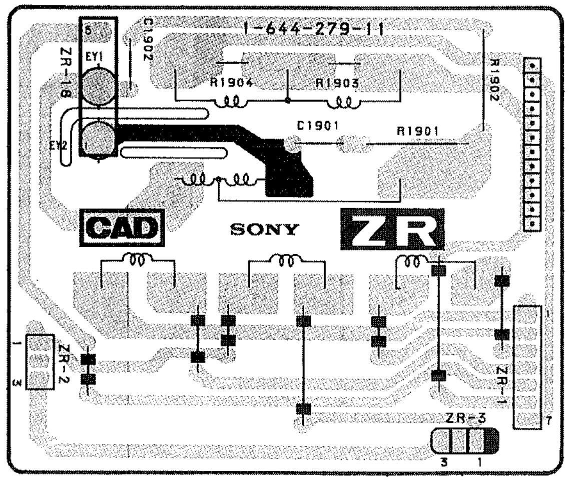
— ZB Board —


1-644-281-11
ZB
SONY
CAD
ZB-20
ZB-2
ZB-3

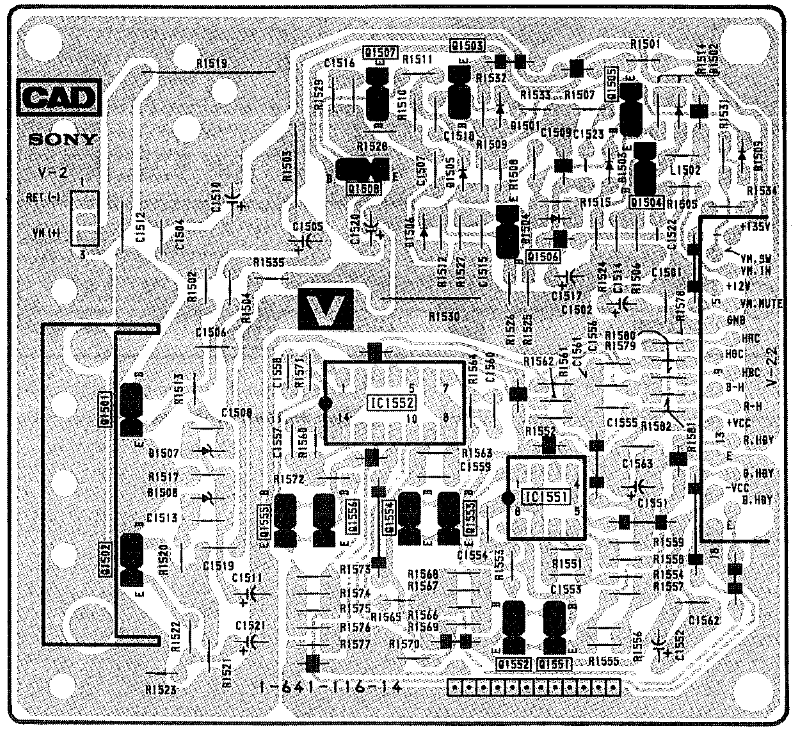
— ZG Board —

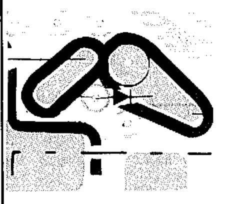

1-644-280-11
ZG
SONY
CAD
ZG-19
ZG-2
ZG-3
ZG-4

— ZR Board —


1-644-279-11
ZR
SONY
CAD
ZR-18
ZR-1
ZR-2
ZR-3

— V Board —

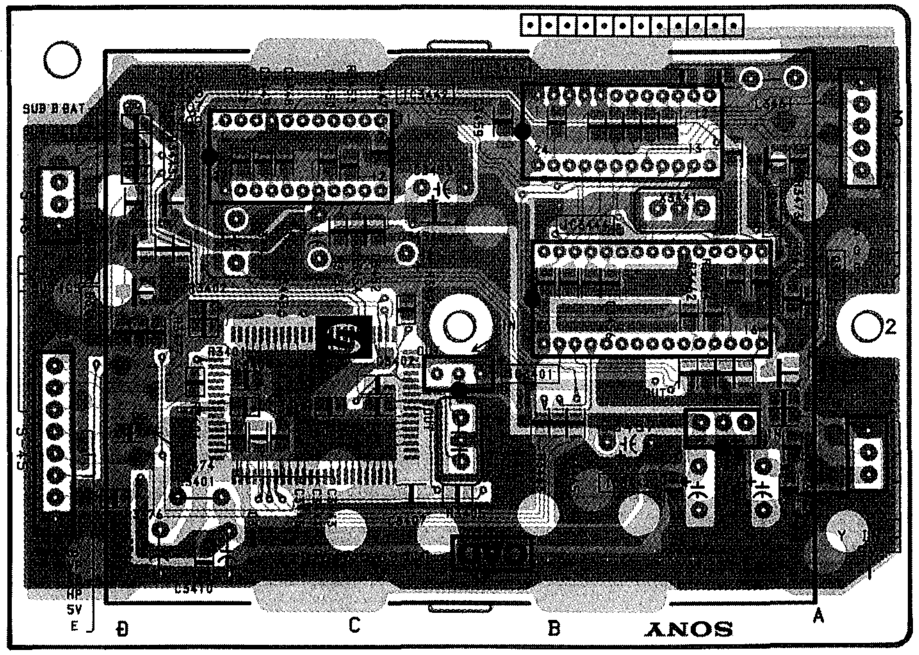

V
SONY
CAD
1-641-116-14
IC1551
IC1552
V-2
V-22

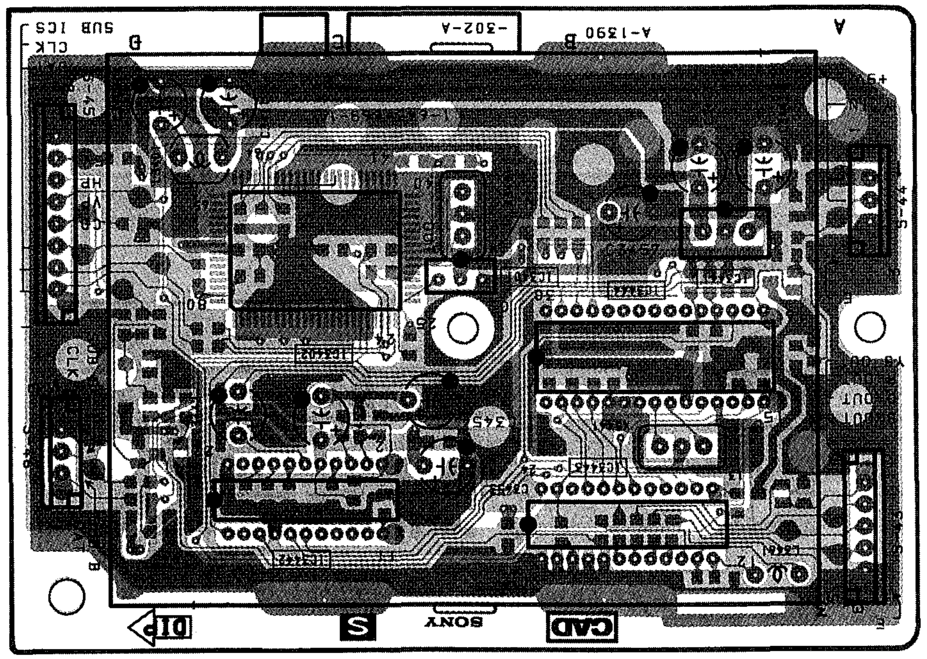


NOTE:
The circuit indicated as left contains high voltage of over 600 Vp-p. Care must be paid to prevent an electric shock in inspection or repairing.

S [SUB-CONTROL, MICRO COMPUTER]

— S Board —


SUB B BAT
HP
5V
E
B
C
B
A
SONY
CAD
2



- ▒: Pattern from the side which enables seeing
- ▓: Pattern of the rear side

N [H. V]

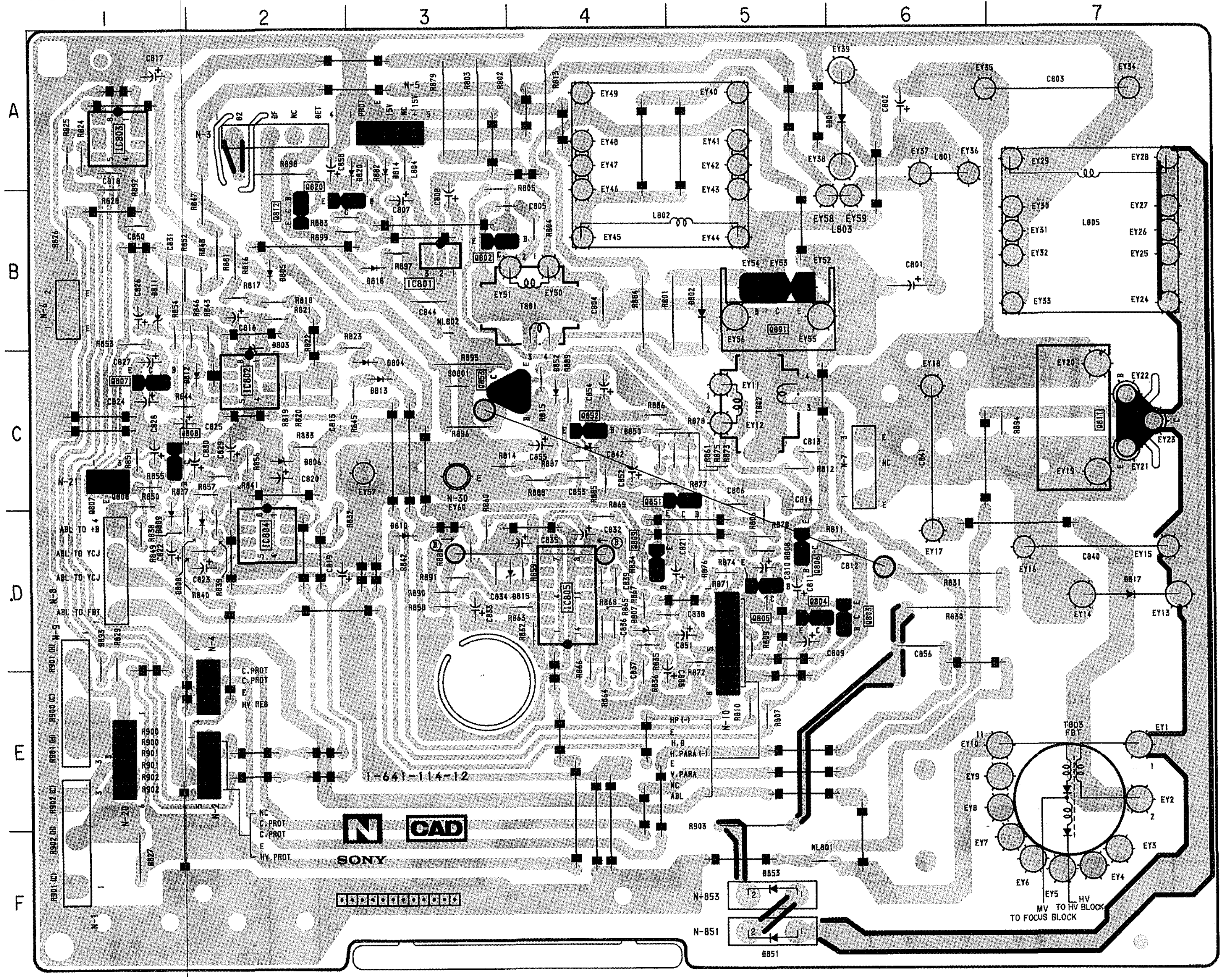
— N Board —

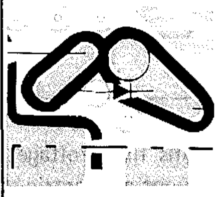
IC	
IC801	B-3
IC802	C-2
IC803	A-1
IC804	D-2
IC805	D-4

TRANSISTOR	
Q801	B-5
Q802	B-3
Q803	D-6
Q804	D-5
Q805	D-5
Q806	D-5
Q807	C-1
Q808	C-1
Q809	D-4
Q811	C-7
Q812	B-1
Q820	B-2
Q851	C-5
Q852	C-4
Q853	C-4

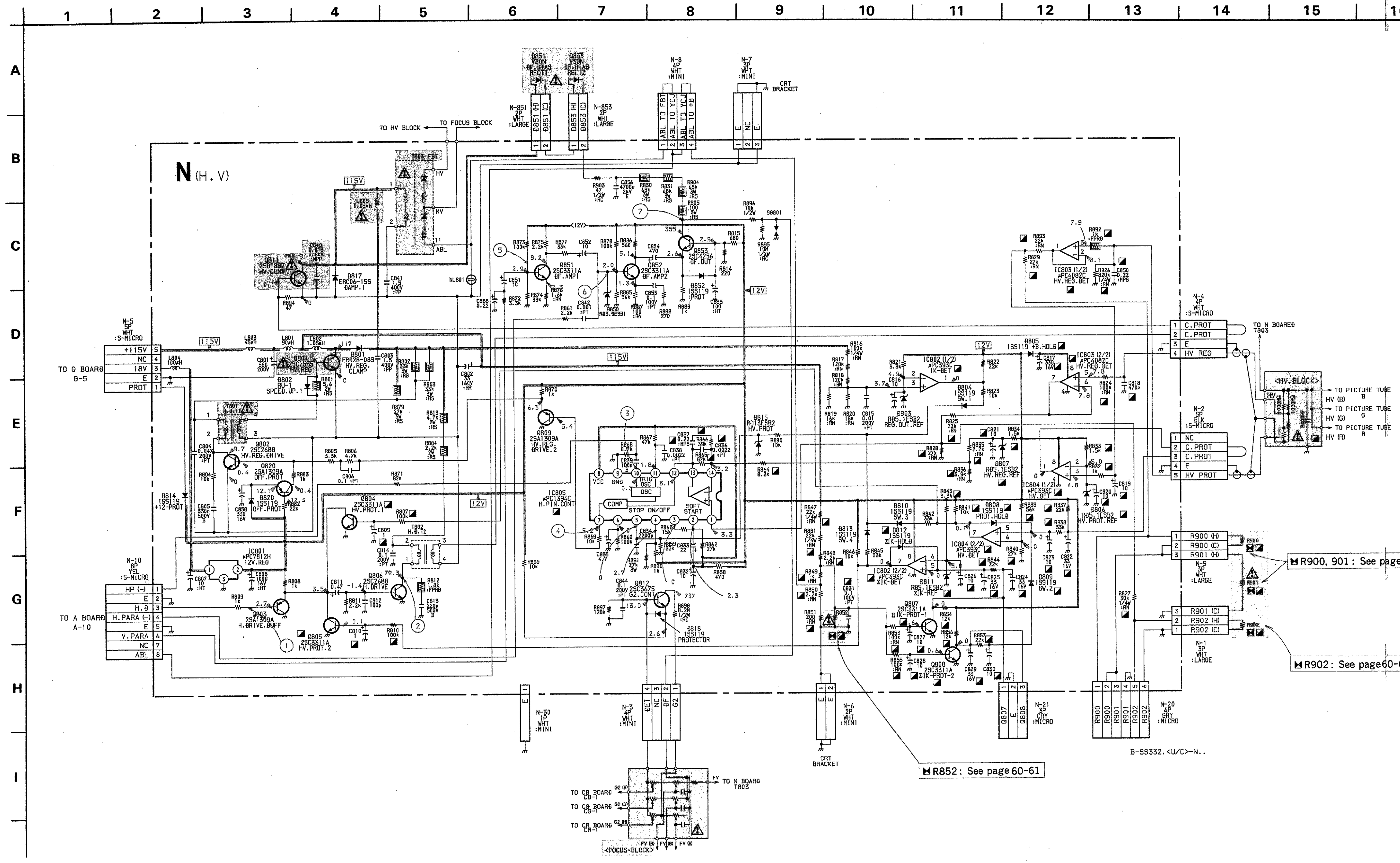
DIODE	
D801	A-6
D802	B-5
D803	B-2
D804	C-3
D805	B-1
D806	C-2
D807	D-4
D808	D-1
D809	D-1
D810	D-3
D811	B-1
D812	C-1
D813	C-3
D814	A-1
D815	D-4
D817	D-7
D818	B-3
D820	A-3
D850	C-4
D852	C-4

— N Board —


1
2
3
4
5
6
7
A
B
C
D
E
F
IC801
IC802
IC803
IC804
IC805
T803 FBT
1-641-114-12
N
CAD
SONY
N-853
N-851
HV TO HV BLOCK
MV TO FOCUS BLOCK
ABL TO +B
ABL TO YCJ
ABL TO FBT
C.PROT
HV REG
H.PARA
V.PARA
NL801
NL802
L801
L802
L803
L805



NOTE:
The circuit indicated as left contains high voltage of over 600 Vp-p. Care must be paid to prevent an electric shock in inspection or repairing.

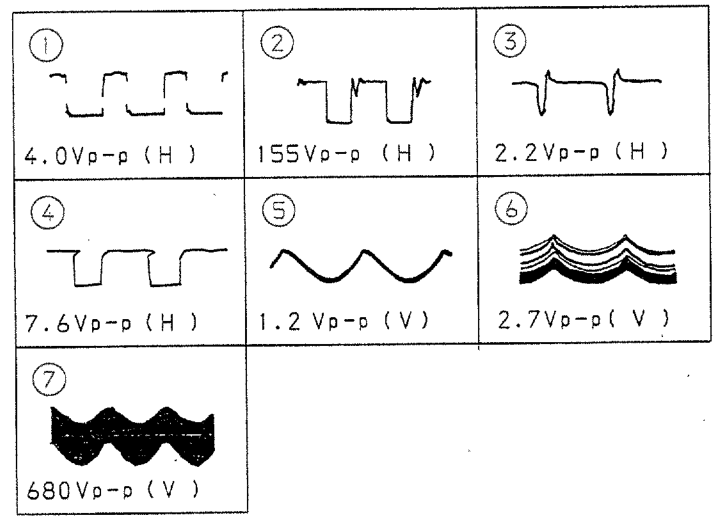

N (H.V)
TO HV BLOCK
TO FOCUS BLOCK
N-5 5P WHT :S-MICRO
TO G BOARD G-5
+115V 5
NC 4
18V 3
E 2
PROT 1
N-10 8P YEL :S-MICRO
TO A BOARD A-10
HP (-) 1
E 2
H.D 3
H.PARA (-) 4
E 5
V.PARA 6
NC 7
ABL 8
Q811 2SD1887 HV.CONV
D817 ERC06-15S DAMP.1
Q801 2SC2555 HV.REG
D801 ERD28-08S HV.REG.CLAMP
D802 RU-1 SPEED.UP.1
T801 H.D.T
Q802 2SC2688 HV.REG.DRIVE
Q820 2SA1309A OFF.PROT
D820 1SS119 OFF.PROT
D814 1SS119 +12-PROT
IC801 μPC7812H 12V.REG
Q803 2SA1309A H.DRIVE.BUFF
Q805 2SC3311A HV.PROT.2
Q804 2SC3311A HV.PROT.1
IC802 μPC1094C H.PIN.CONT
STOP ON/OFF
COMP
OSC
SOFT START
IC803 (1/2) μPC4082C HV.REG.DET
IC803 (2/2) μPC4082C HV.REG.DET
IC804 (1/2) μPC393C HV.DET
D806 RD5.1ESB2 HV.PROT.REF
D809 1SS119 SW.2
N-4 4P WHT :S-MICRO
1 C.PROT
2 C.PROT
3 E
4 HV REG
TO N BOARD T803
<HV.BLOCK>
TO PICTURE TUBE B HV (B)
TO PICTURE TUBE G HV (G)
TO PICTURE TUBE R HV (R)
N-2 5P BLK :S-MICRO
1 NC
2 C.PROT
3 C.PROT
4 E
5 HV PROT
1 R900 (H)
2 R900 (C)
3 R901 (H)
N-9 3P WHT :LARGE
3 R901 (C)
2 R902 (H)
1 R902 (C)
N-1 3P WHT :LARGE
R900 R900 R901 R901 R902 R902
N-20 6P GRY :MICRO
N-21 3P GRY :MICRO
N-3 4P WHT :MINI
N-6 3P WHT :MINI
N-7 3P WHT :MINI
N-8 4P WHT :MINI
N-30 1P WHT :MINI
N-851 2P WHT :LARGE
N-853 2P WHT :LARGE
CRT BRACKET
TO CR BOARD
TO CG BOARD
TO CB BOARD
TO N BOARD T803
<FOCUS-BLOCK>
115V
12V
B-SS332.<U/C>-N..

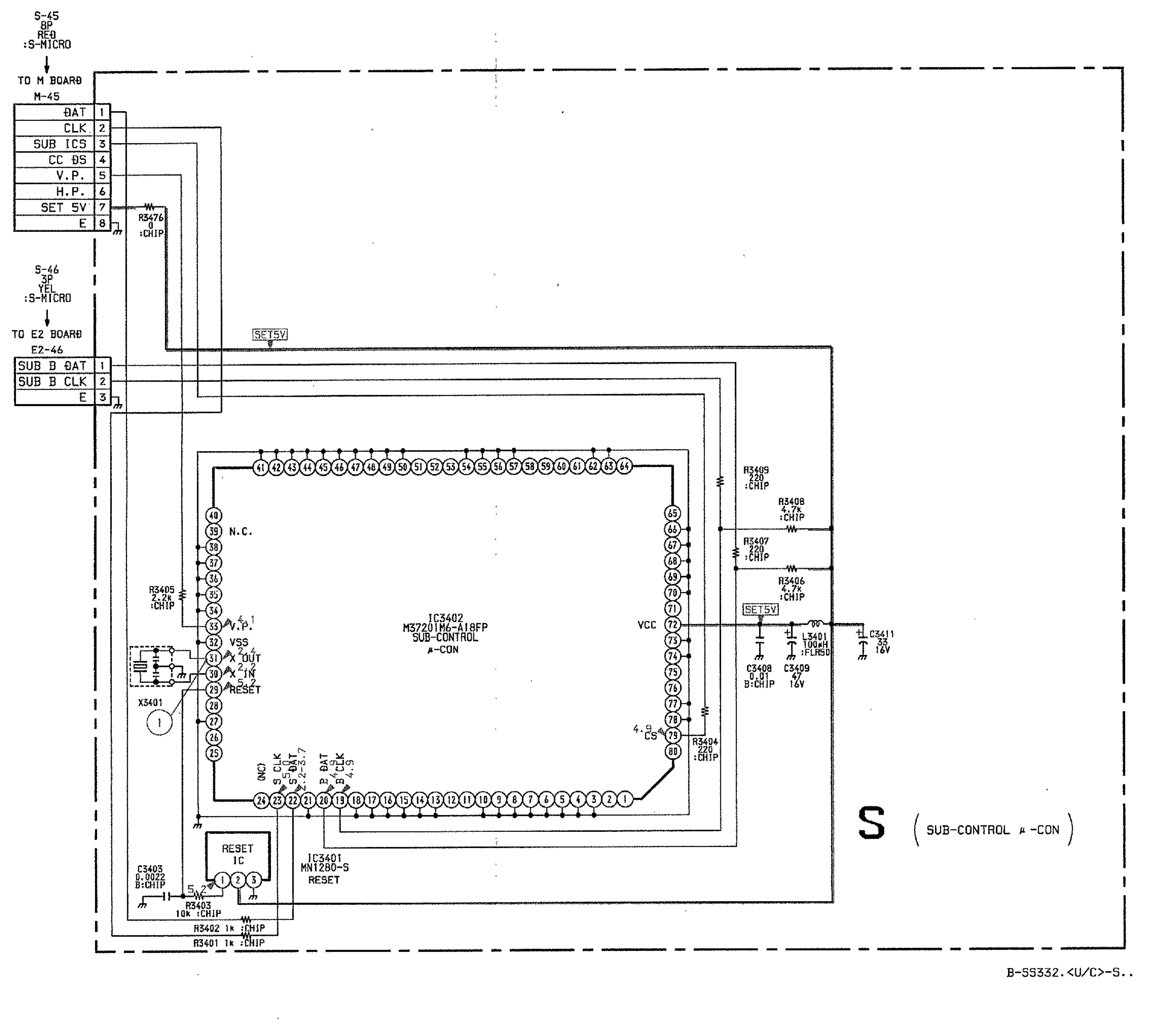
R900, 901 : See page 59-62

R902 : See page 60-62

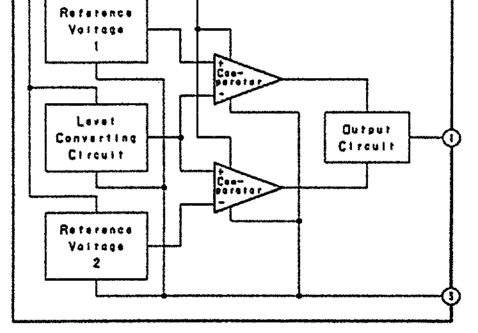
R852 : See page 60-61

— N Board —

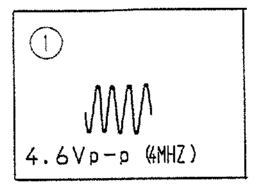

①
4.0Vp-p (H)
②
155Vp-p (H)
③
2.2Vp-p (H)
④
7.6Vp-p (H)
⑤
1.2 Vp-p (V)
⑥
2.7Vp-p (V)
⑦
680Vp-p (V)

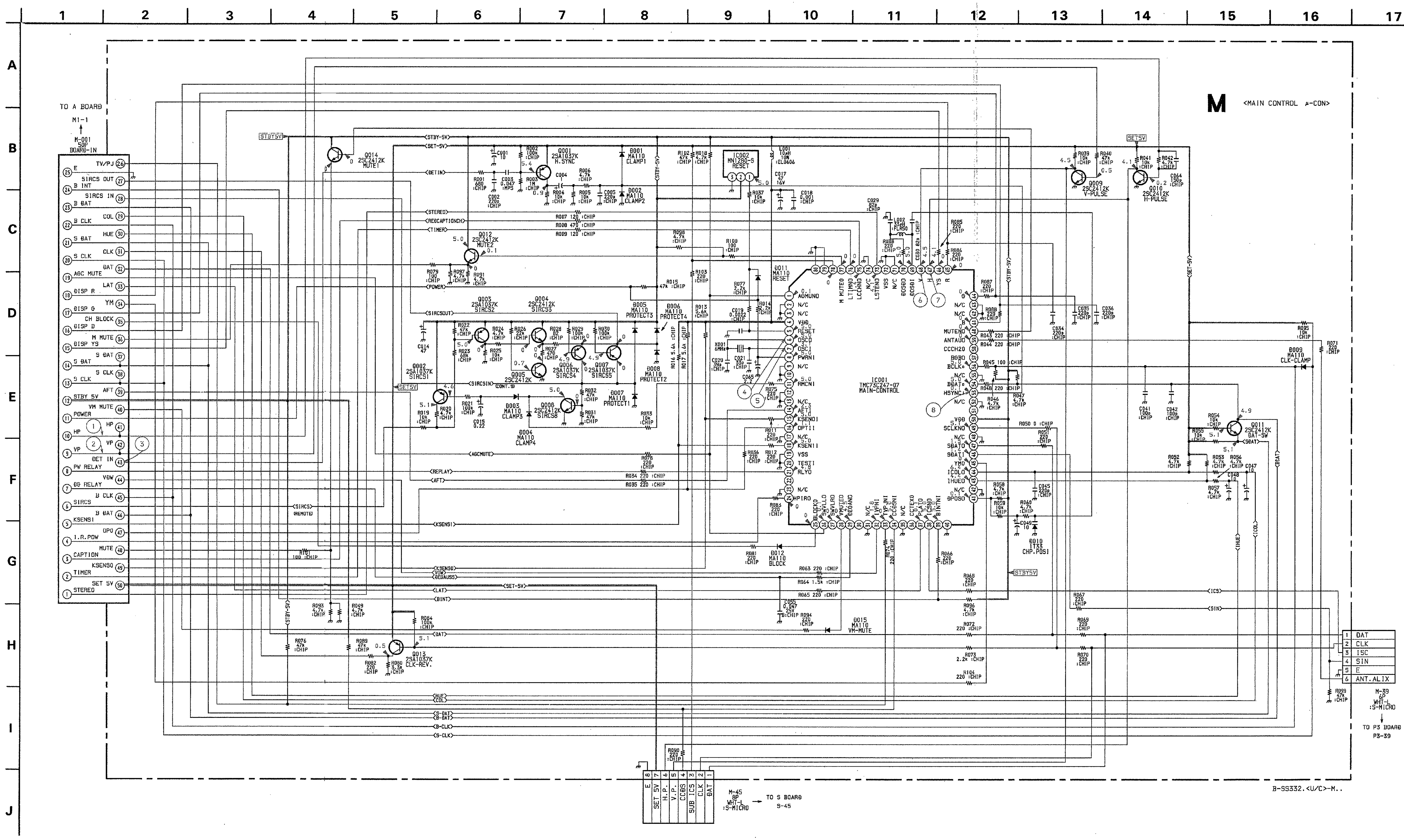

S-45 8P RED :S-MICRO
TO M BOARD M-45
DAT 1
CLK 2
SUB ICS 3
CC DS 4
V.P. 5
H.P. 6
SET 5V 7
E 8
R3476 0 :CHIP
S-46 3P YEL :S-MICRO
TO E2 BOARD E2-46
SUB B DAT 1
SUB B CLK 2
E 3
SET5V
IC3402 M37201M6-A18FP SUB-CONTROL μ-CON
N.C.
V.P.
VSS
X OUT
X IN
RESET
VCC
CS
(NC)
S CLK
S DAT
P DAT
B CLK
X3401
R3405 2.2k :CHIP
R3409 220 :CHIP
R3408 4.7k :CHIP
R3407 220 :CHIP
R3406 4.7k :CHIP
R3404 220 :CHIP
C3408 0.01 B:CHIP
C3409 47 16V
L3401 100μH :FLR50
C3411 33 16V
RESET IC
IC3401 MN1280-S RESET
C3403 0.0022 B:CHIP
R3403 10k :CHIP
R3402 1k :CHIP
R3401 1k :CHIP
S (SUB-CONTROL μ-CON)
B-SS332.<U/C>-S..

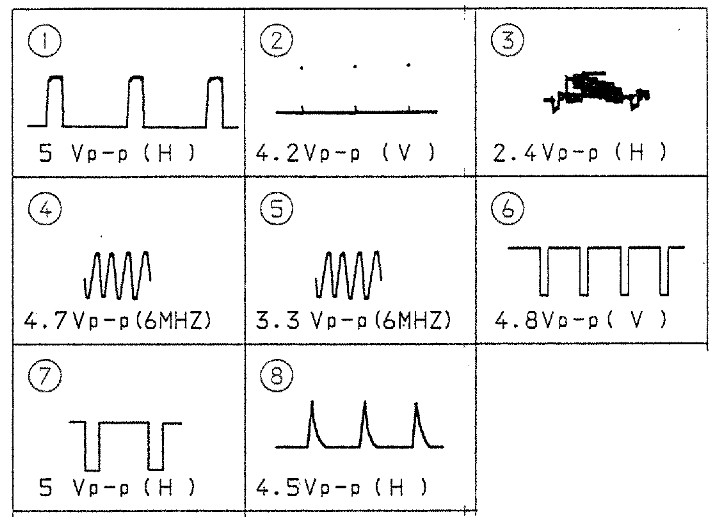
S Board IC3401 MN1280-S


Reference Voltage 1
Level Converting Circuit
Reference Voltage 2
Comparator
Comparator
Output Circuit
①
②
③

— S Board —

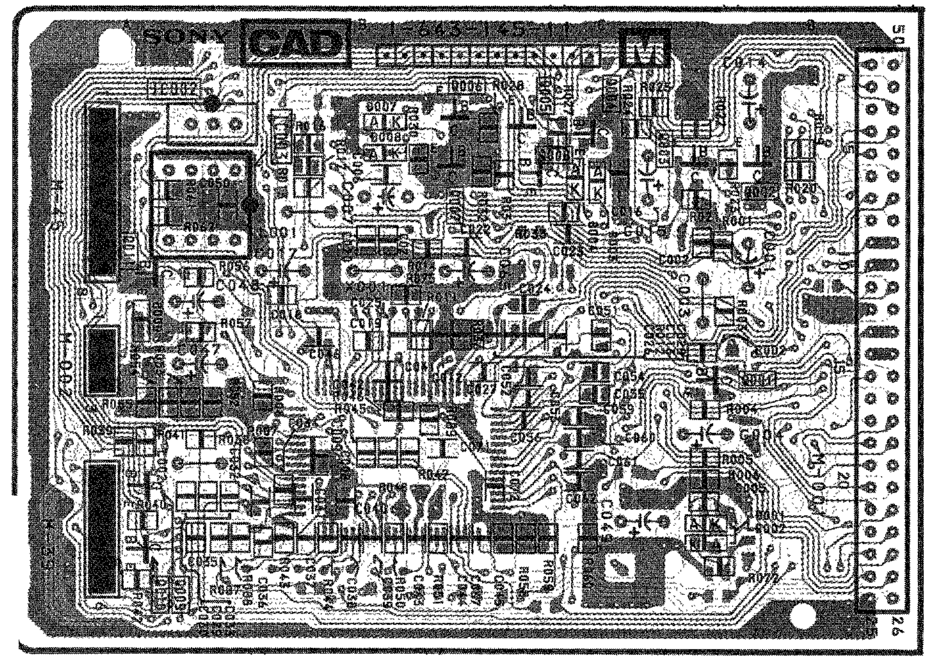

①
4.6Vp-p (4MHZ)

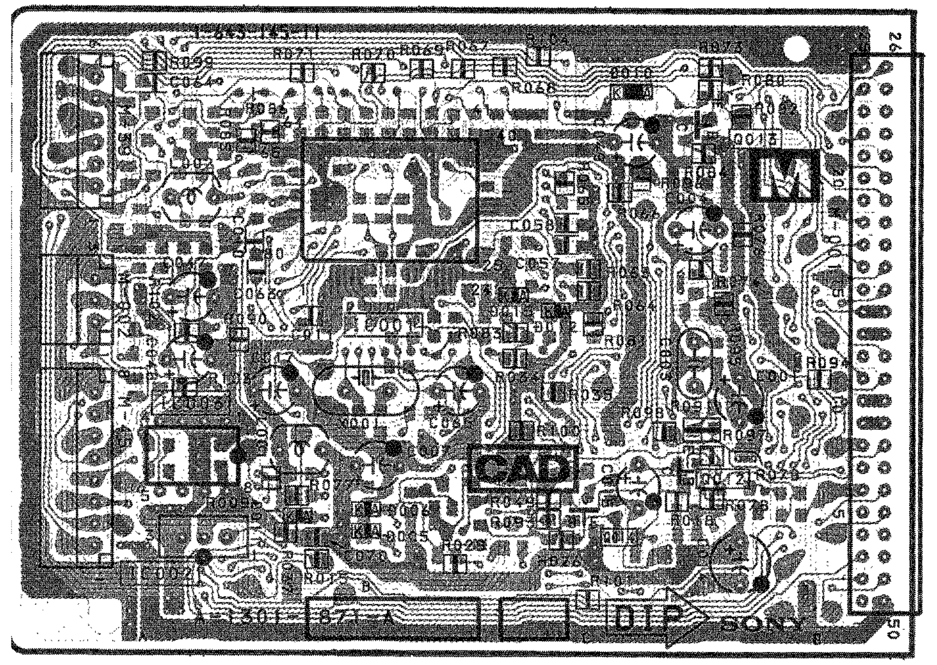

M
<MAIN CONTROL µ-CON>
TO A BOARD
M1-1
M-001
50P
BOARD-IN
TV/PJ
E
SIRCS OUT
B INT
SIRCS IN
B DAT
COL
B CLK
HUE
S DAT
CLK
S CLK
DAT
AGC MUTE
LAT
DISP R
YM
DISP G
CH BLOCK
DISP B
M MUTE
DISP YS
AFT
STBY 5V
VM MUTE
POWER
HP
VP
DET IN
PW RELAY
VDW
DG RELAY
SIRCS
KSENS1
OPO
I.R.POW
MUTE
CAPTION
KSENSO
TIMER
SET 5V
STEREO
IC001
TMP47C247-07
MAIN-CONTROL
IC002
RESET
DAT
CLK
ISC
SIN
E
ANT.ALIX
R099
47k
:CHIP
M-39
6P
WHT-L
:S-MICRO
TO P3 BOARD
P3-39
R090
220
:CHIP
E
SET 5V
H.P.
V.P.
CCDS
SUB ICS
CLK
DAT
M-45
8P
WHT-L
:S-MICRO
TO S BOARD
S-45
B-SS332.<U/C>-M..



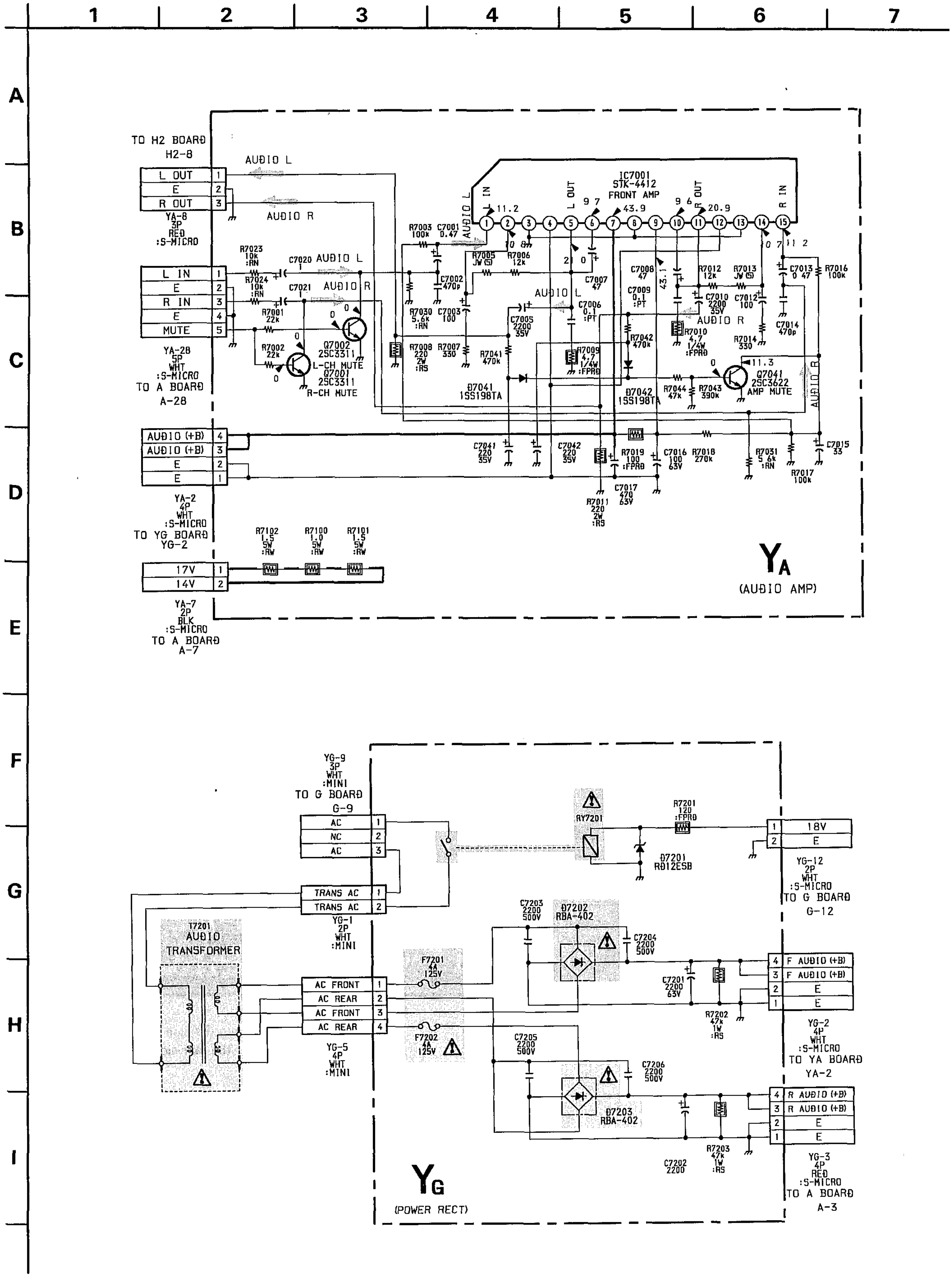
M [MAIN CONTROL, MICRO COMPUTER]

— M Board —



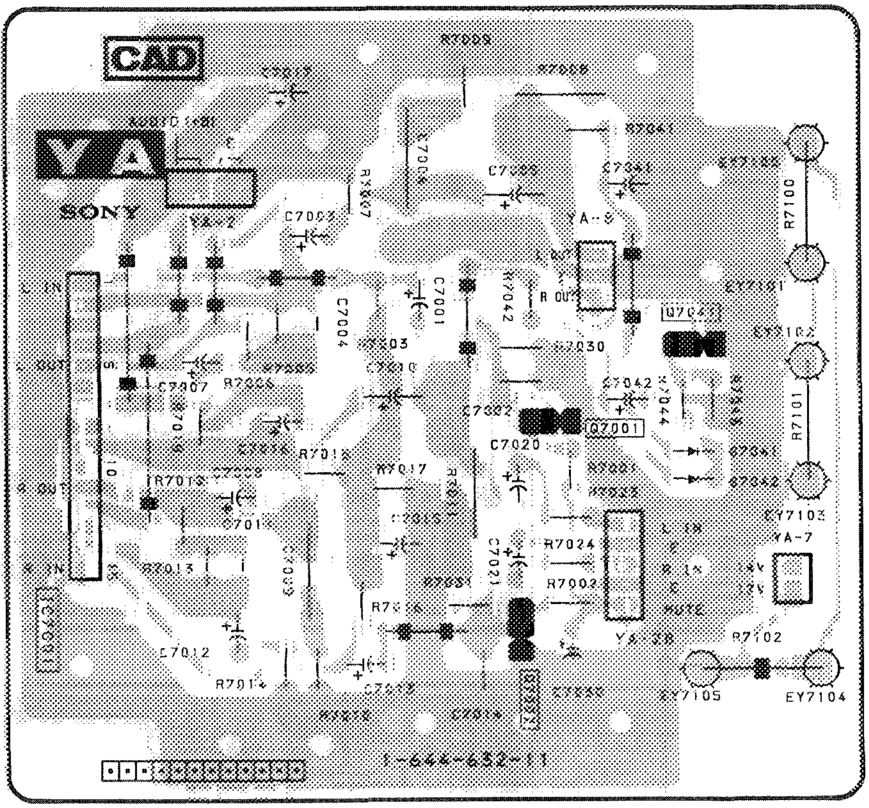

M
CAD
DIP
SONY

- ▨ : Pattern from the side which enables seeing
- ▩ : **Pattern of the rear side**

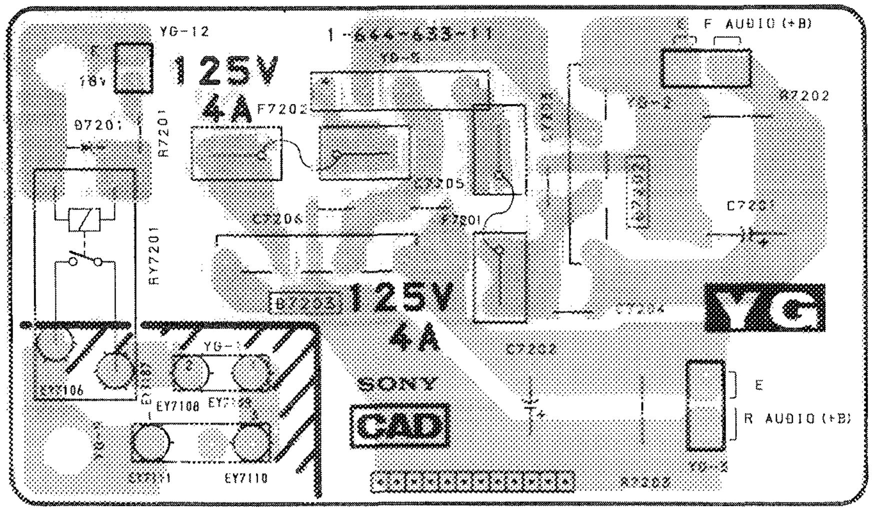

1
2
3
4
5
6
7
A
B
C
D
E
F
G
H
I
TO H2 BOARD
H2-8
AUDIO L
L OUT
E
R OUT
AUDIO R
YA-8
3P
RED
:S-MICRO
IC7001
STK-4412
FRONT AMP
AUDIO L
L IN
L OUT
R OUT
R IN
11.2
9.7
43.9
9.6
20.9
10.8
10.7
11.2
R7003 100k
C7001 0.47
R7005 JW(5)
R7006 12k
R7023 10k :RN
R7024 10k :RN
C7020 1
C7021 1
AUDIO L
AUDIO R
L IN
E
R IN
E
MUTE
R7001 22k
R7002 22k
Q7002 2SC3311 L-CH MUTE
Q7001 2SC3311 R-CH MUTE
YA-28
5P
WHT
:S-MICRO
TO A BOARD
A-28
C7002 470p
R7030 5.6k :RN
C7003 100
R7008 220 2W :RS
R7007 330
R7041 470k
C7005 2200 35V
D7041 1SS198TA
C7007 47
C7006 0.1 :PT
AUDIO L
R7009 4.7 1/4W :FPRD
C7008 47
C7009 0.1 :PT
43.1
R7042 470k
D7042 1SS198TA
R7012 12k
R7013 JW(5)
C7010 2200 35V
C7012 100
AUDIO R
R7010 4.7 1/4W :FPRD
R7014 330
C7013 0.47
R7016 100k
C7014 470p
Q7041 2SC3622 AMP MUTE
11.3
R7044 47k
R7043 390k
AUDIO R
AUDIO (+B)
AUDIO (+B)
E
E
C7041 220 35V
C7042 220 35V
R7019 100 :FPRD
C7016 100 63V
R7018 270k
R7031 5.6k :RN
C7015 33
R7017 100k
C7017 470 63V
R7011 220 2W :RS
YA-2
4P
WHT
:S-MICRO
TO YG BOARD
YG-2
R7102 1.5 5W :RW
R7100 1.0 5W :RW
R7101 1.5 5W :RW
17V
14V
YA-7
2P
BLK
:S-MICRO
TO A BOARD
A-7
YA
(AUDIO AMP)
YG-9
3P
WHT
:MINI
TO G BOARD
G-9
AC
NC
AC
RY7201
R7201 120 :FPRD
D7201 RD12ESB
18V
E
YG-12
2P
WHT
:S-MICRO
TO G BOARD
G-12
TRANS AC
TRANS AC
YG-1
2P
WHT
:MINI
T7201
AUDIO
TRANSFORMER
C7203 2200 500V
D7202 RBA-402
C7204 2200 500V
F7201 4A 125V
AC FRONT
AC REAR
AC FRONT
AC REAR
YG-5
4P
WHT
:MINI
F7202 4A 125V
C7201 2200 63V
R7202 47k 1W :RS
F AUDIO (+B)
F AUDIO (+B)
E
E
YG-2
4P
WHT
:S-MICRO
TO YA BOARD
YA-2
C7205 2200 500V
C7206 2200 500V
D7203 RBA-402
R AUDIO (+B)
R AUDIO (+B)
E
E
R7203 47k 1W :RS
C7202 2200
YG-3
4P
RED
:S-MICRO
TO A BOARD
A-3
YG
(POWER RECT)

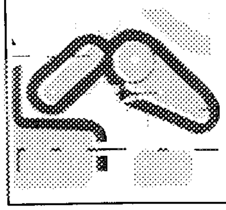
YA [AUDIO AMP] **YG** [POWER RECT]

— YA Board —


CAD
YA
SONY
R7009
R7008
R7041
C7341
C7003
C7002
R7007
YA-2
YA-8
L IN
L OUT
R OUT
R IN
C7004
C7001
R7042
R7203
R7030
Q7043
C7010
C7007
R7006
C7042
R7044
C7322
Q7001
C7020
R7016
R7018
R7017
R7013
C7008
C7011
C7019
R7024
R7002
C7021
C7009
C7012
R7014
C7013
C7014
R7100
R7101
EY7101
EY7102
EY7103
YA-7
YA-3B
MUTE
R7102
EY7105
EY7104
1-644-632-11

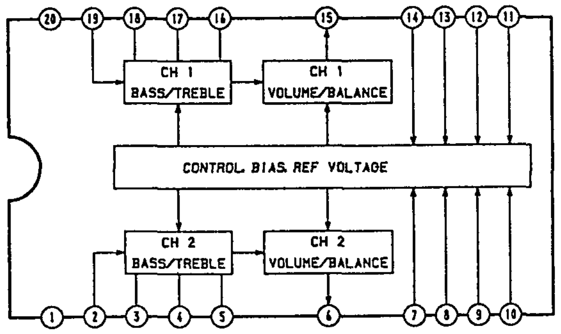
— YG Board —


YG-12
18V
125V
4A
F7202
1-644-633-11
F AUDIO (+B)
R7202
D7201
R7201
RY7201
C7205
R7201
C7206
C7201
C7204
C7202
R7203
125V
4A
YG
YG-1
EY7106
EY7108
EY7111
EY7110
SONY
CAD
E
R AUDIO (+B)
YG-3
R7302

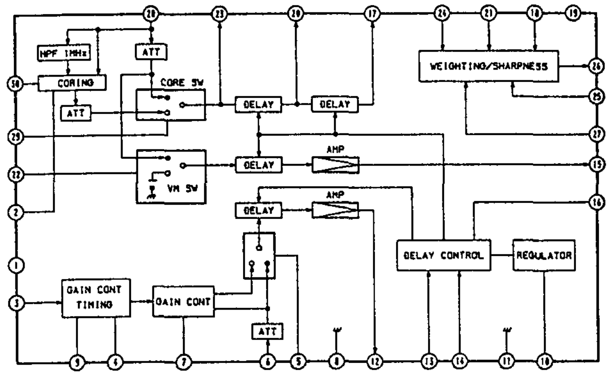


NOTE:
The circuit indicated as left contains high voltage of over 600 Vp-p. Care must be paid to prevent an electric shock in inspection or repairing.

Y2 Board IC407 TA8184P

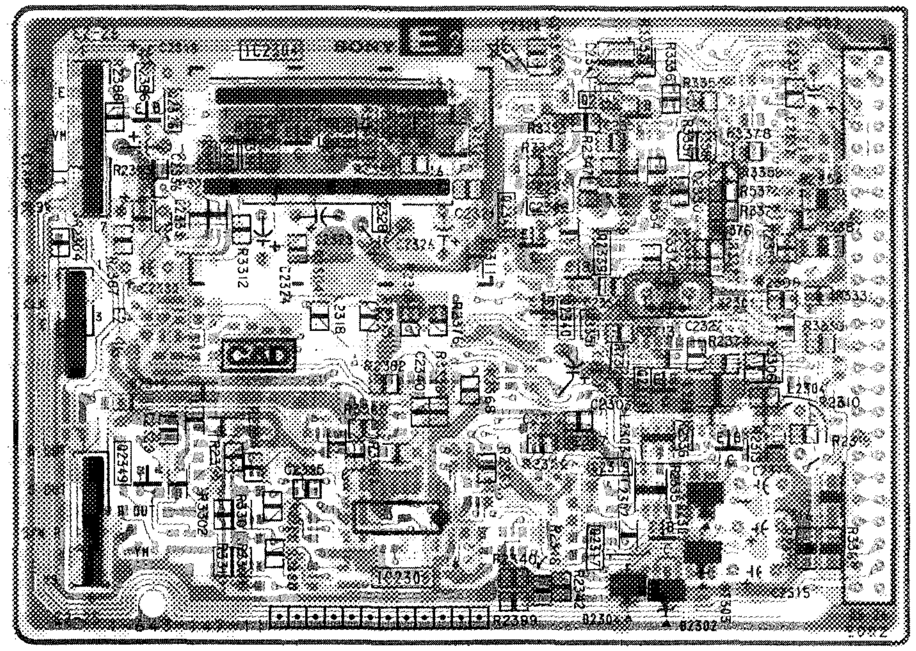

20
19
18
17
16
15
14
13
12
11
CH 1 BASS/TREBLE
CH 1 VOLUME/BALANCE
CONTROL BIAS REF VOLTAGE
CH 2 BASS/TREBLE
CH 2 VOLUME/BALANCE
1
2
3
4
5
6
7
8
9
10

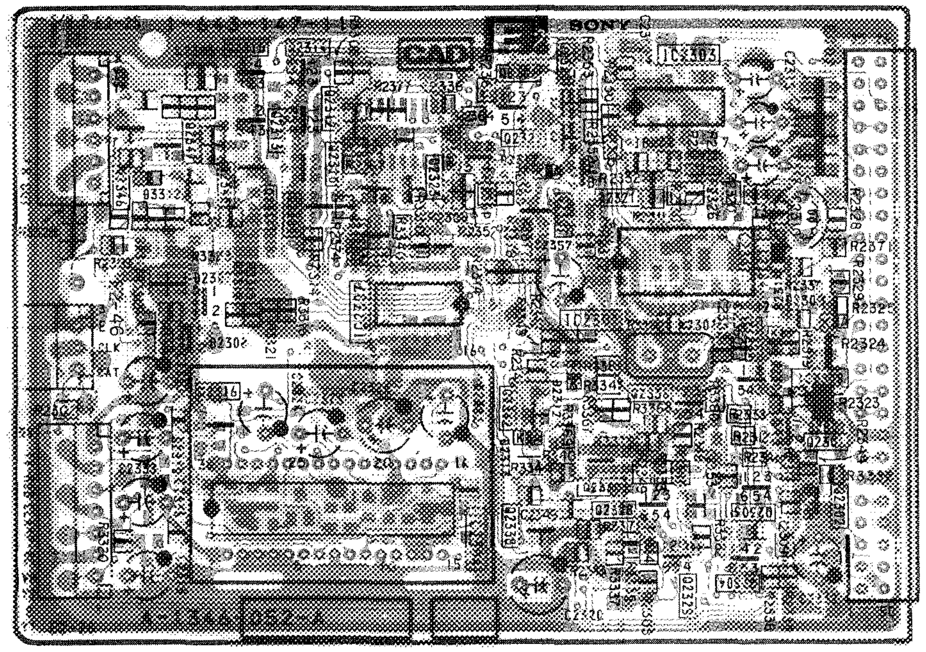
E2 Board IC2304 CXA1387S


HPF 1MHz
ATT
CORING
ATT
CORE SW
DELAY
DELAY
WEIGHTING/SHARPNESS
VM SW
DELAY
AMP
DELAY
AMP
DELAY CONTROL
REGULATOR
GAIN CONT TIMING
GAIN CONT
ATT

E2 [SHARPNESS CONT., CHARACTOR GENERATER]

— E2 Board —



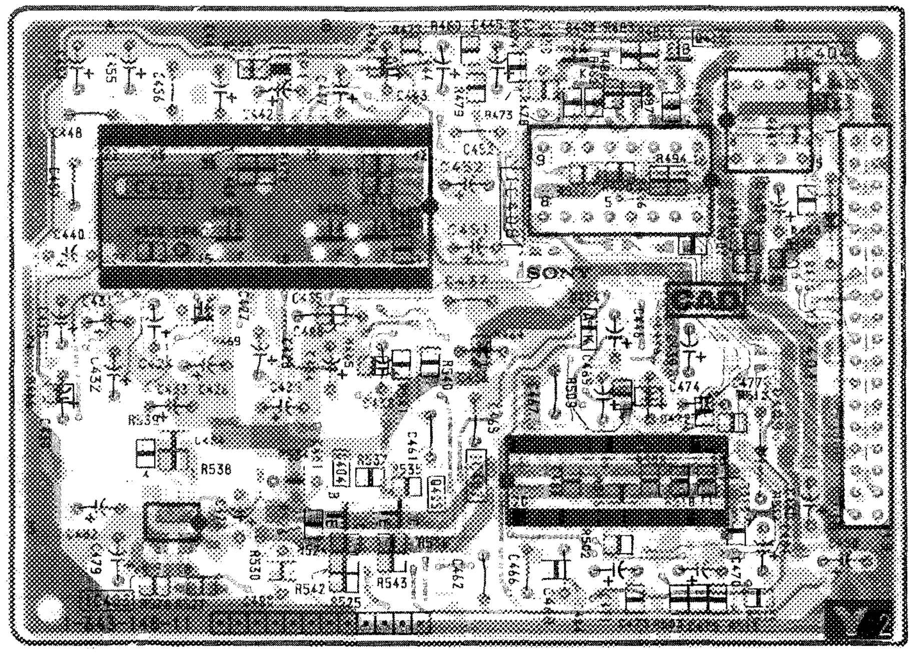


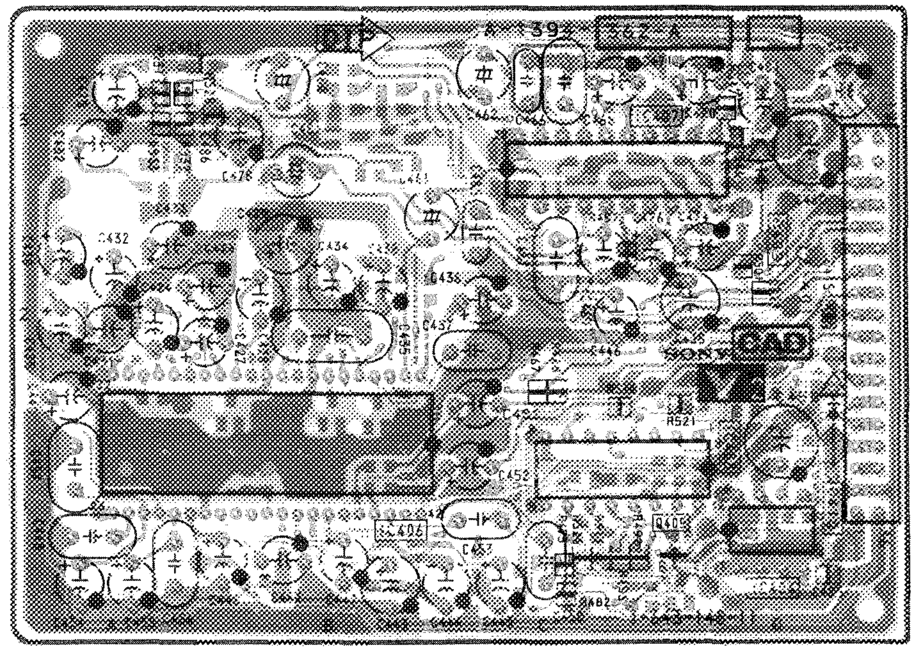
░ : Pattern from the side which enables seeing

▓ : Pattern of the rear side

Y2 [MTS DECORDER, NVM, AUDIO CONT]

— Y2 Board —



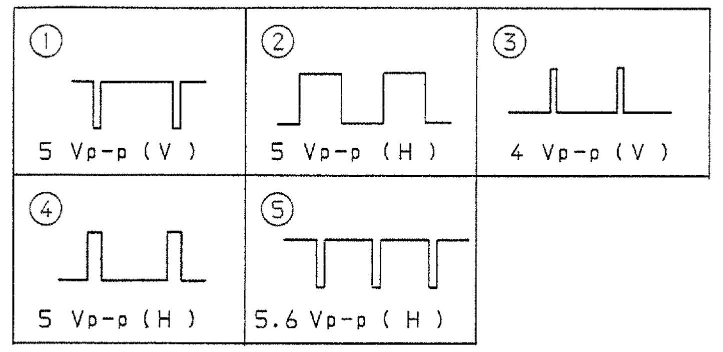


░ : Pattern from the side which enables seeing

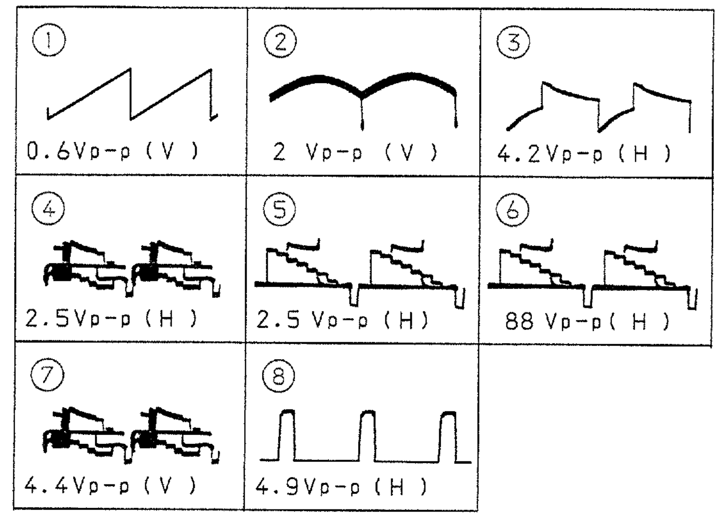
▓ : Pattern of the rear side

Y2
MTS DECORDER
NVM
AUDIO CONT.
IC406 CXA1264AS MTS-DECODE
IC403 RC4558PS-T1 AMPLIFIER
IC404 24C04A1 ROM
IC407 TA8184P VOL-CONT.
BASS TREBLE BOOST
IC408 CXA1315P D/A CONTROL
Q404 2SA1037K BUFFER
Q405 2SA1037K BUFFER
Q409 2SC2412K BUFFER
Q410 2SC2412K BUFFER
AUDIO L
AUDIO R
MPX
STBY5V
TO A BOARD AS001
Y2-401 36P :BOARD-IN
① STBY 5V
② E
③ MPX
④ 9V
⑤ B CLK
⑥ B DAT
⑦ SURO
⑧ TV-R OUT
⑨ TV-L OUT
⑩ SUR 1
⑪ VAR-R OUT
⑫ VAR-L OUT
⑬ E
⑭ R-EXT
⑮ L-EXT
⑯ SP MUTE
⑰ SP-R OUT
⑱ TP-1
⑲ SP-L OUT
⑳ R-VOL
㉟ 12V
B-SS332.<U/C>-Y2.
— E2 Board —
① 2.4Vp-p (H)
② 2.4Vp-p (H)
③ 4.2Vp-p (V)
④ 5 Vp-p (H)
⑤ 3.7 Vp-p (H)
⑥ 3.2Vp-p(H)
⑦ 2.9Vp-p (H)
⑧ 2.9Vp-p (H)
⑨ 2.6 Vp-p (H)
⑩ 4.4Vp-p (4MHZ)
⑪ 5.5Vp-p (4MHZ)
E2
SHARPNESS CONT.
CHARACTOR GENERATER
IC2301 PCA8516T/21/-T CHR-GEN
IC2303 SN74HC00ANS BRT-SW
IC2306 MC74HC4053F RGB-SW
IC2307 CXA1315M DUS-D/A
E2-25 TO E1 BOARD E1-25
E2-26 TO E1 BOARD E1-26
TO S BOARD S-46
SUB DAT
SUB CLK
E
E2-002 50P BOARD-IN
TO A BOARD E2-1
① Y
② B-Y
③ R-Y
④ YS
⑤ C
⑥ E
⑦ Y
⑧ E
⑨ DISP YS
⑩ DISP B
⑪ DISP G
⑫ DISP R
⑬ VP
⑭ HP
⑮ SCLK
⑯ SDAT
⑰ RGB SW
⑱ EXT B
⑲ EXT G
⑳ EXT R
㉑ YS
㉒ YM
㉓ ABL
㉔ B-INT
㉕ MPX
(26) TEXT R
(27) SUB DAT
(28) SUB CLK
(29) YM
(30) YS
(31) EXT R
(32) EXT G
(33) EXT B
(34) RGB SW
(35) SDAT
(36) SCLK
(37) HP
(38) VP
(39) DISP R
(40) DISP G
(41) DISP B
(42) DISP YS
(43) E
(44) Y
(45) E
(46) C
(47) E
(48) MAIN V
(49) 5V
(50) 9V
B-SS332.<U/C>-E2.

— P2 Board —


①
5 Vp-p (V)
②
5 Vp-p (H)
③
4 Vp-p (V)
④
5 Vp-p (H)
⑤
5.6 Vp-p (H)

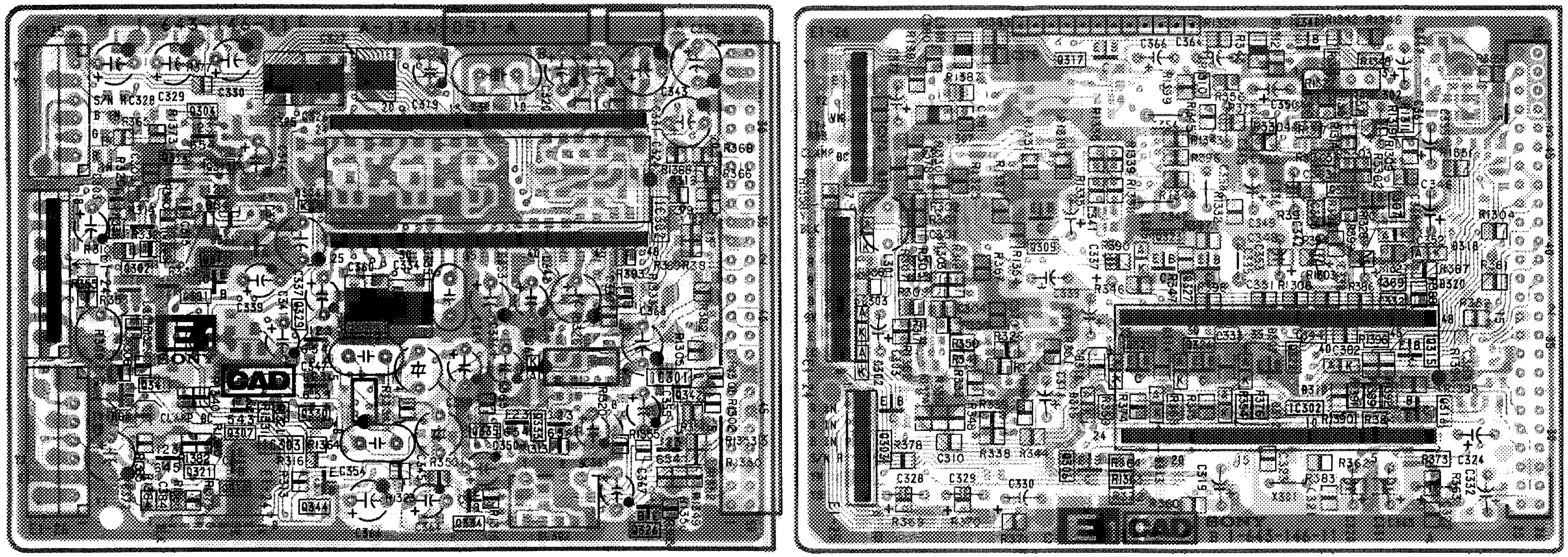
— E1 Board —


①
0.6Vp-p (V)
②
2 Vp-p (V)
③
4.2Vp-p (H)
④
2.5Vp-p (H)
⑤
2.5 Vp-p (H)
⑥
88 Vp-p (H)
⑦
4.4Vp-p (V)
⑧
4.9Vp-p (H)

TO A BOARD
P2-1
TO A BOARD
A-24
TO E2 BOARD
E2-25
TO E2 BOARD
E2-26
IC5005
CXD1220AQ
MPX.CONT
IC3502
CXA1464AS
Y/C JUNGLE
P2
<MPX PICTURE IN PICTURE CIRCUIT>
B-SS332 <U/C>-P2
TO P3 BOARD
P3-40
E1
<Y/C JUNGLE>
TO A BOARD
E1-1
B-SS332 <U/C>-E1

E1 [Y/C JUNGLE] P2 [MPX PICTURE IN PICTURE CIRCUIT]

— E1 Board —

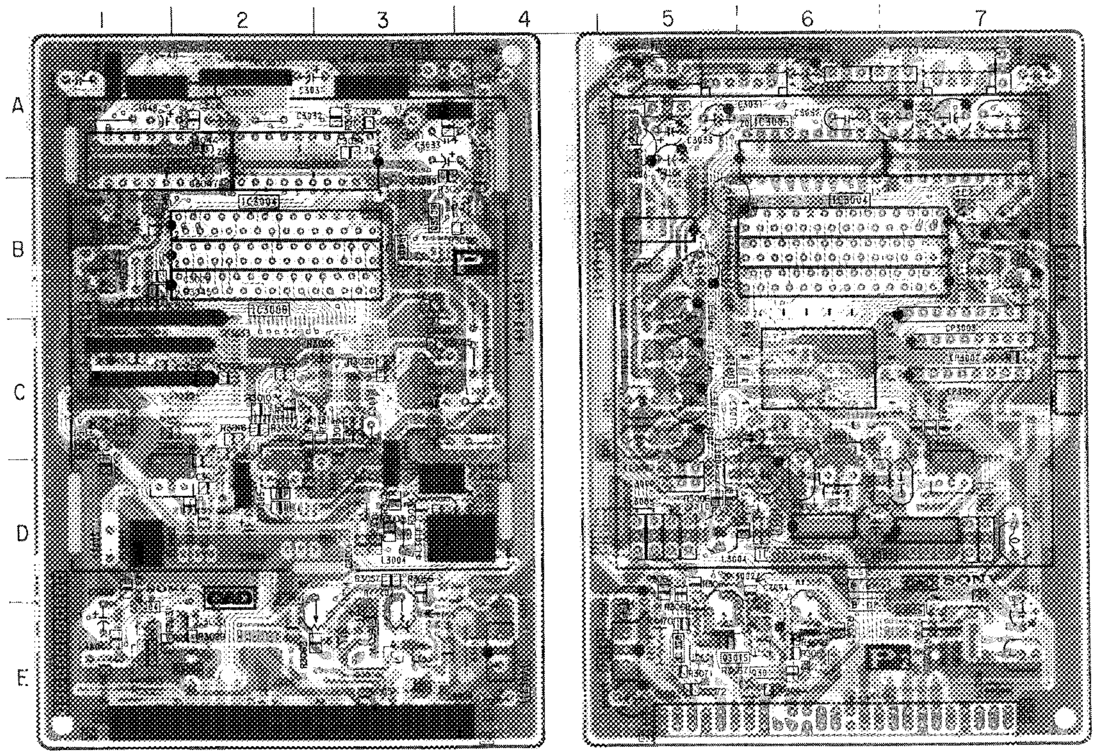


▨ Pattern from the side which enables seeing
▨ : Pattern of the rear side

— P2 Board —

IC	
IC3001	D-6
IC3002	D-6
IC3003	C-6
IC3004	B-2
IC3005	A-2
IC3006	B-3
IC3007	B-5
IC3008	B-2
IC3009	A-1
IC3010	A-5
IC3011	E-4
TRANSISTOR	
Q3001	D-3
Q3002	D-6
Q3003	E-2
Q3004	E-1
Q3005	C-1
Q3006	E-7
Q3007	C-1
Q3008	B-1
Q3009	B-3
Q3010	E-3
Q3011	E-6
Q3012	E-6
Q3013	E-3
Q3014	E-5
Q3015	E-6

— P2 Board —

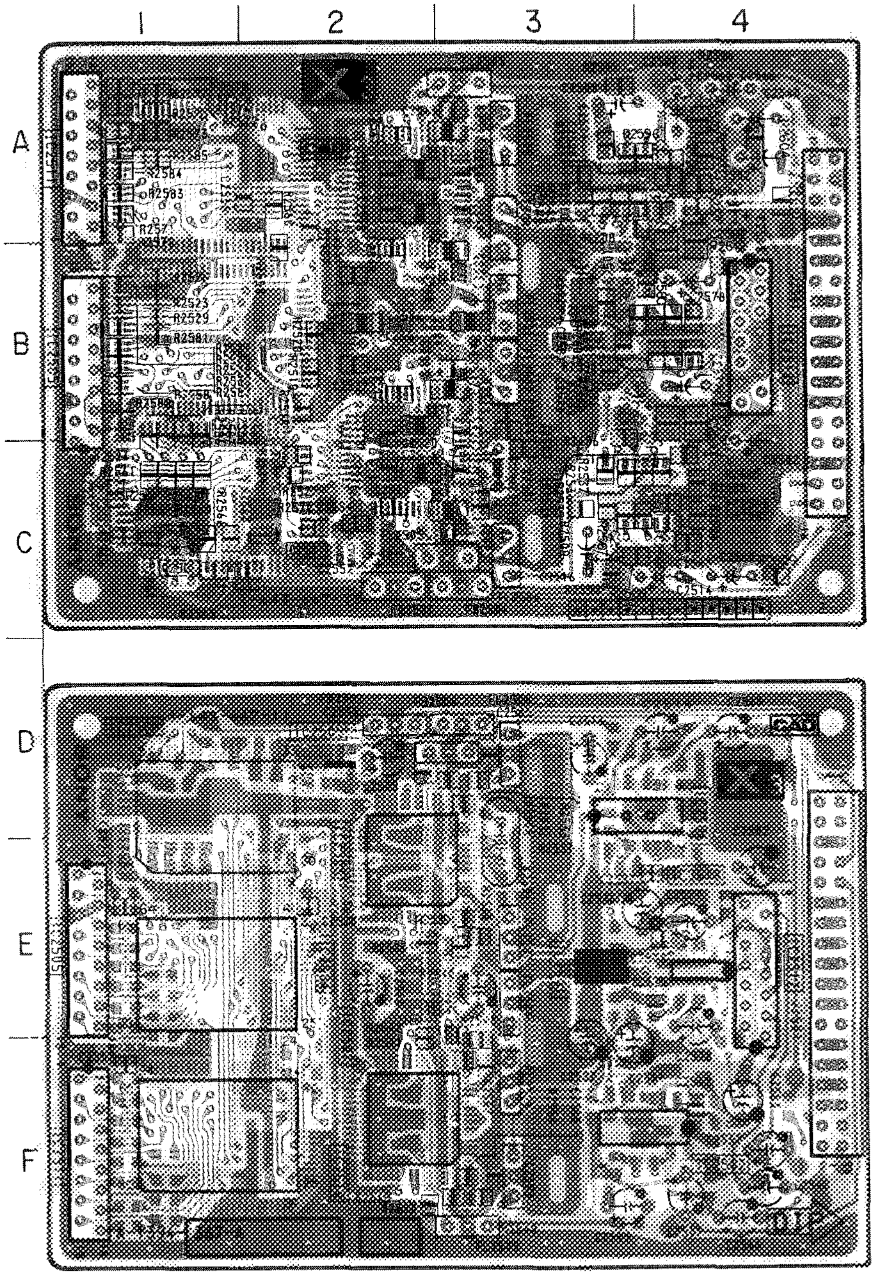


▨ Pattern from the side which enables seeing
▨ : Pattern of the rear side

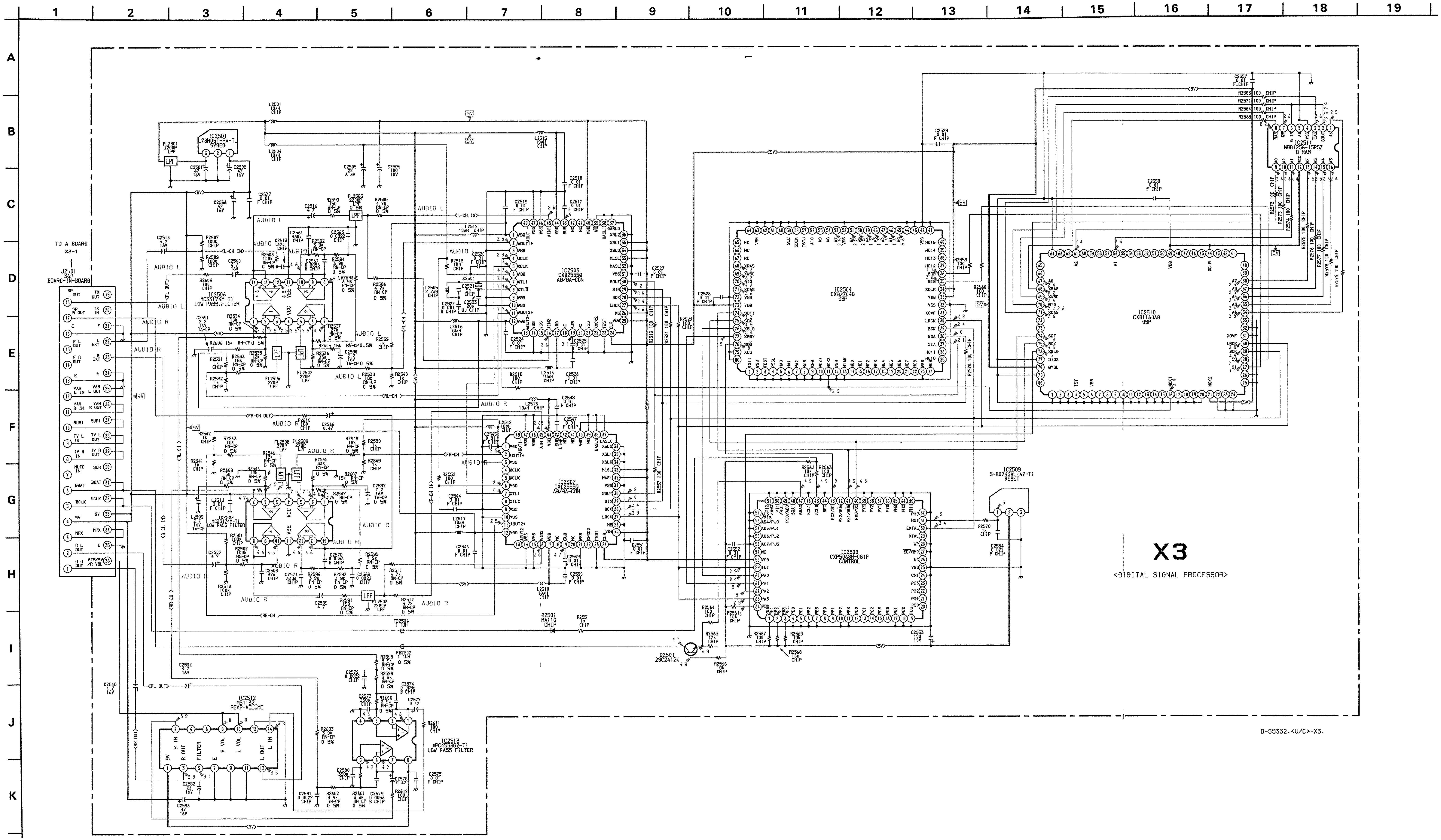
X3 [DIGITAL SIGNAL PROCESSOR]

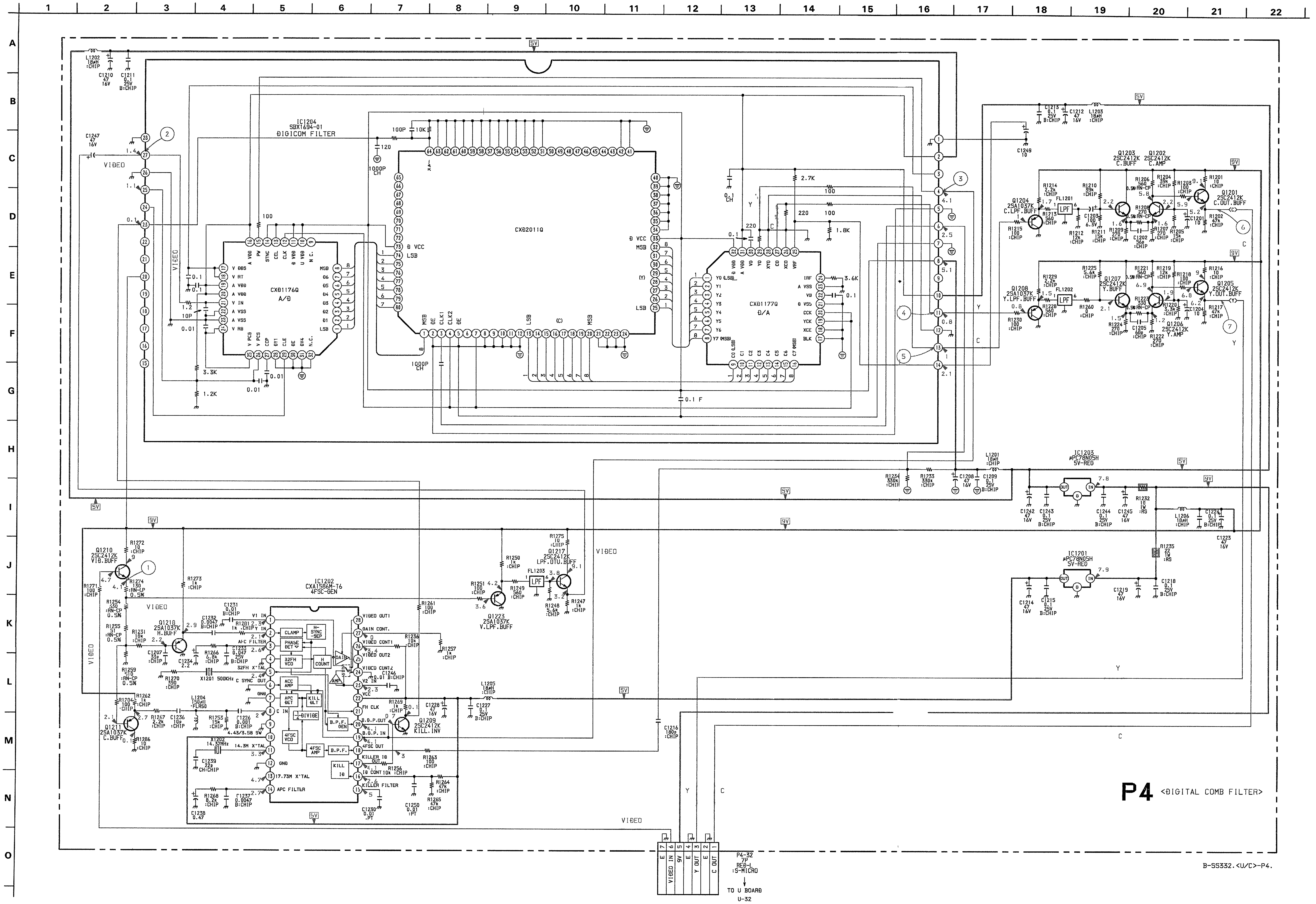
— X3 Board —

IC	
IC2501	E 3
IC2502	F 3
IC2503	E 2
IC2504	E 1
IC2506	D-3
IC2507	F 2
IC2508	D 1
IC2509	D 2
IC2510	F 1
IC2511	A 1
IC2512	E-4
IC2513	E 4
TRANSISTOR	
Q2501	C 1
DIODE	
D2501	C 2


1
2
3
4
A
B
C
D
E
F
R2584
R2583
R2523
R2529
R2581
C2514

▒ : Pattern from the side which enables seeing
▓ : Pattern of the rear side


X3
<DIGITAL SIGNAL PROCESSOR>
TO A BOARD X3-1
J2501 36P BOARD-IN-BOARD
IC2501 L78M05T-FA-TL 5VREG
IC2506 MC33174M-T1 LOW PASS FILTER
IC2502 MC33174M-T1 LOW PASS FILTER
IC2503 CXD2555Q AD/DA-CON
IC2507 CXD2555Q AD/DA-CON
IC2504 CXD2704Q DSP
IC2510 CXD1160AQ DSP
IC2511 MB81256-15PSZ D-RAM
IC2508 CXP5068H-081P CONTROL
IC2509 S-80745AL-A7-T1 RESET
IC2512 M51132L REAR-VOLUME
IC2513 μPC4556G2-T1 LOW PASS FILTER
Q2501 2SC2412K
D2501 MA110 CHIP
AUDIO L
AUDIO R
B-SS332.<U/C>-X3.



IC1204
SBX1694-01
DIGICOM FILTER
CXD1176Q
A/D
CXD2011Q
CXD1177Q
D/A
IC1203
μPC78N05H
5V-REG
IC1201
μPC78N05H
5V-REG
IC1202
CXA1586M-T6
4FSC-GEN
Q1201
2SC2412K
C.OUT.BUFF
Q1202
2SC2412K
C.AMP
Q1203
2SC2412K
C.BUFF
Q1204
2SA1037K
C.LPF.BUFF
Q1205
2SC2412K
Y.OUT.BUFF
Q1206
2SC2412K
Y.AMP
Q1207
2SC2412K
Y.BUFF
Q1208
2SA1037K
Y.LPF.BUFF
Q1209
2SC2412K
KILL.INV
Q1210
2SC2412K
VIB.BUFF
Q1210
2SA1037K
H.BUFF
Q1211
2SA1037K
C.BUFF
Q1217
2SC2412K
LPF.OUT.BUFF
Q1223
2SA1037K
V.LPF.BUFF
FL1201
FL1202
FL1203
LPF
VIDEO
Y
C
5V
9V
CLAMP
H-SYNC SEP
PHASE DET
32FH VCO
H COUNT
GAIN
AMP
ACC AMP
APC DET
KILL DET
DIVIDE
B.P.F. GEN
4FSC VCO
4FSC AMP
B.P.F.
KILL ID
X1201 500KHz
X1202 14.31MHz
P4-32
7P
RED-L
:S-MICRO
TO U BOARD
U-32
VIDEO IN
9V
E
Y OUT
E
C OUT
B-SS332.<U/C>-P4.

P4 <DIGITAL COMB FILTER>

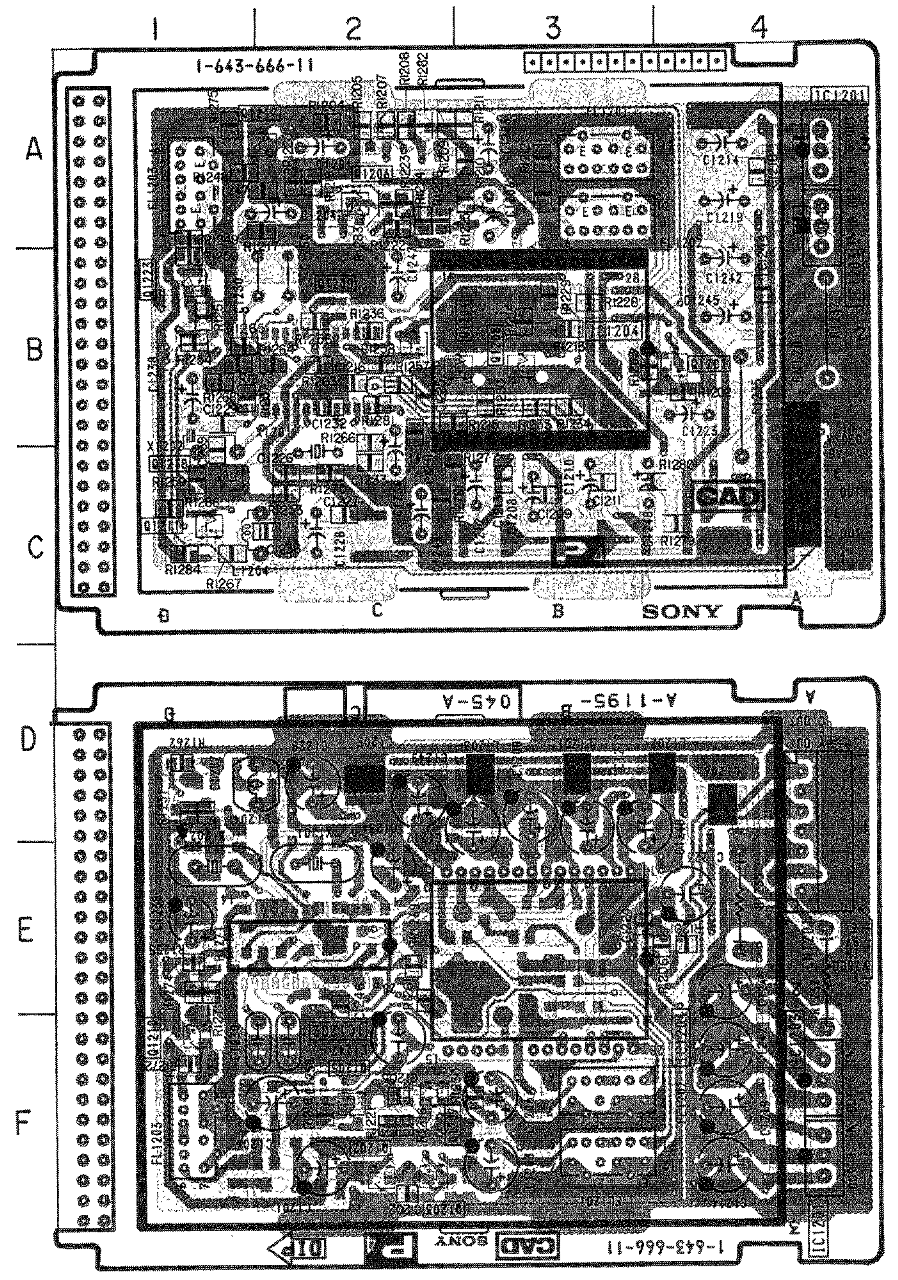
P4 [DIGITAL COMB FILTER]

— P4 Board —

IC	
IC1201	F-4
IC1202	E-2
IC1203	F-4
IC1204	B-3

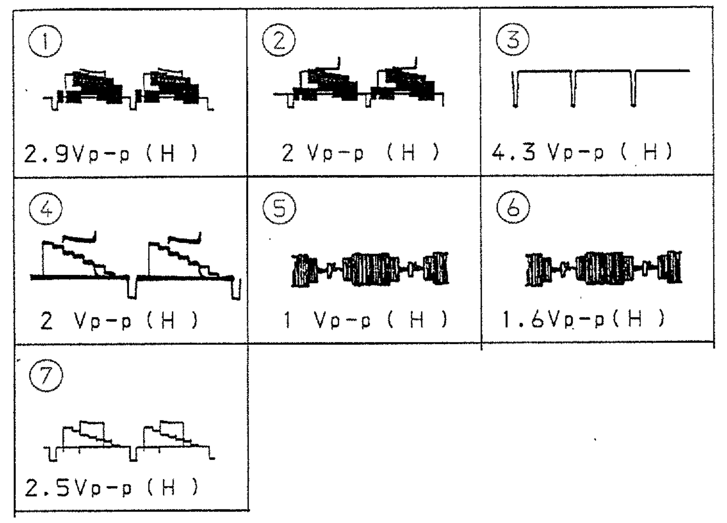
TRANSISTOR	
Q1201	B-4
Q1202	F-2
Q1203	F-2
Q1204	B-3
Q1205	F-2
Q1206	A-2
Q1207	F-2
Q1208	B-3
Q1209	B-2
Q1210	F-1
Q1211	C-1
Q1217	A-2
Q1218	C-1
Q1223	B-1

— P4 Board —

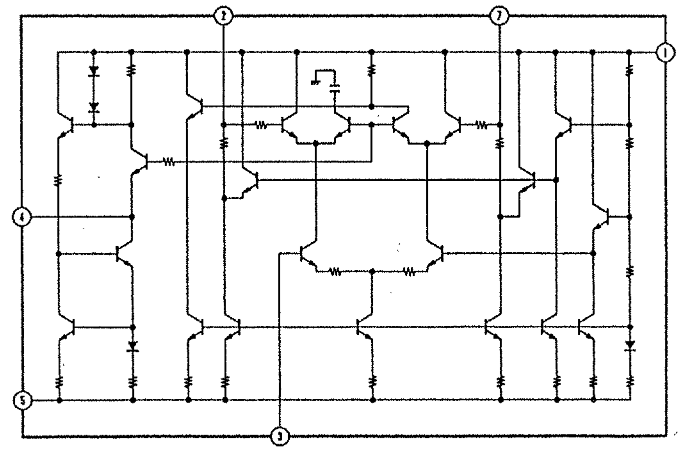

1
2
3
4
A
B
C
D
E
F
1-643-666-11
SONY
CAD

- ▨: Pattern from the side which enables seeing
- ■: Pattern of the rear side

— P4 Board —



P3 Board IC2006 CX20061



P3 2SD CONT, μ-CON FOR PIP, ANT SW CONT 2ND TUNER-VIF/SIF FOR PIP, Y/C JUNGLE FOR PIP

— P3 Board —

IC	
IC2001	F-1
IC2002	C-2
IC2003	D-3
IC2004	B-3
IC2005	C-3
IC2006	F-4
IC2007	E-4

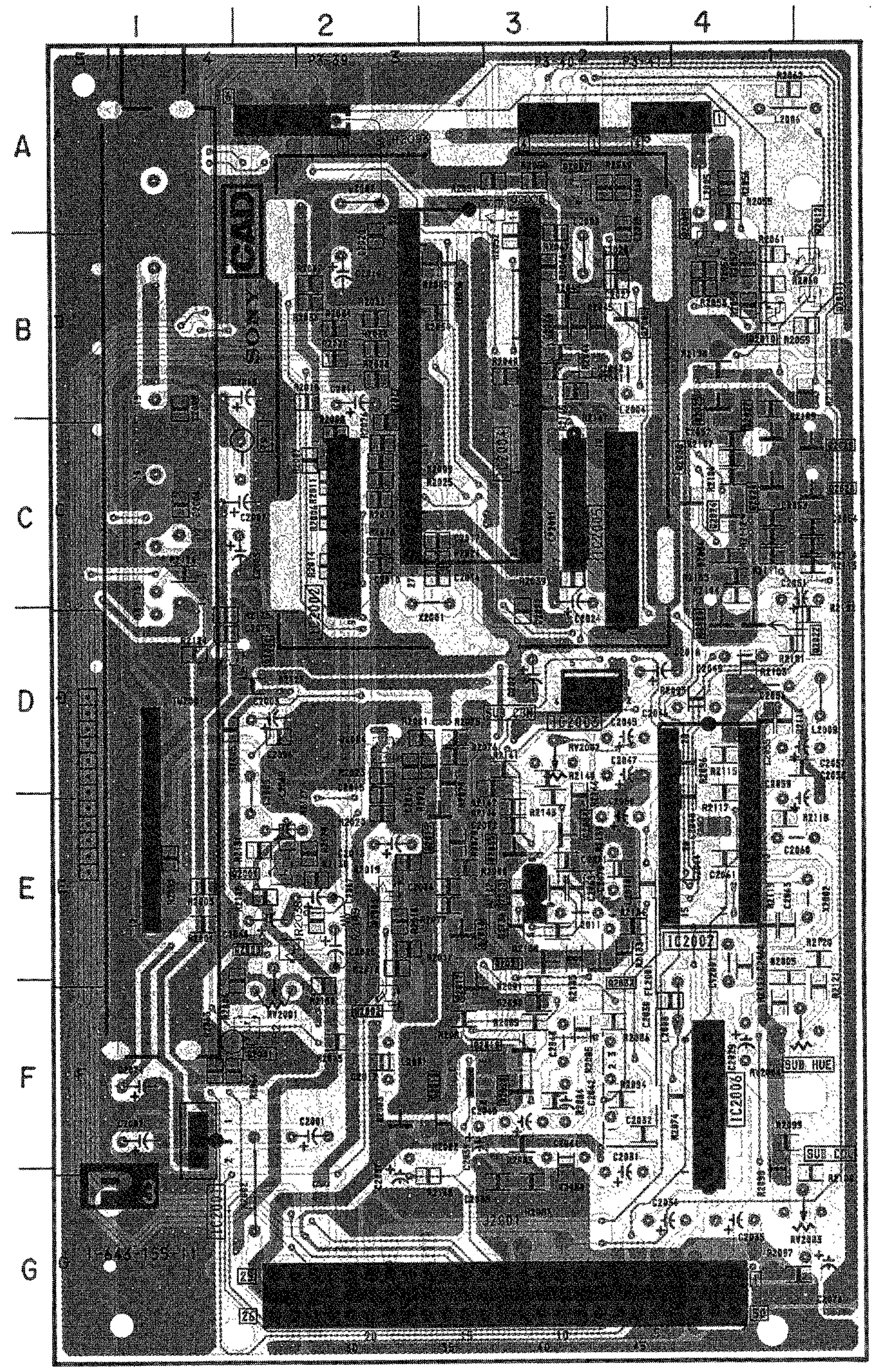
TRANSISTOR	
Q2001	E-2
Q2002	F-2
Q2003	E-2
Q2004	D-2
Q2005	B-4
Q2006	A-3
Q2007	A-3
Q2008	E-2
Q2009	B-4
Q2010	B-4
Q2011	B-4
Q2012	B-4
Q2015	E-3
Q2016	E-3
Q2017	F-3
Q2018	F-3
Q2019	F-3
Q2020	F-3
Q2021	E-3
Q2022	D-4
Q2023	D-4
Q2024	C-4
Q2025	B-4
Q2026	C-4
Q2027	B-4
Q2028	C-4
Q2029	C-4
Q2030	D-2
Q2031	F-2
Q2032	E-3
Q2034	E-3
Q2036	C-4

DIODE	
D2003	F-2
D2004	C-4
D2005	E-4

VARIABLE RESISTOR	
RV2001	F-2
RV2002	D-3
RV2003	G-4
RV2004	F-4

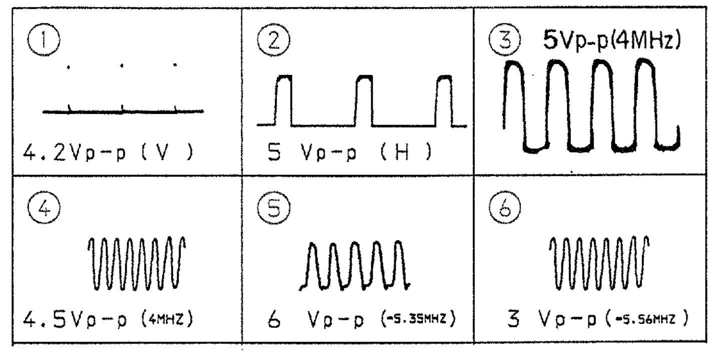
TRYMMER	
CV201	E-4

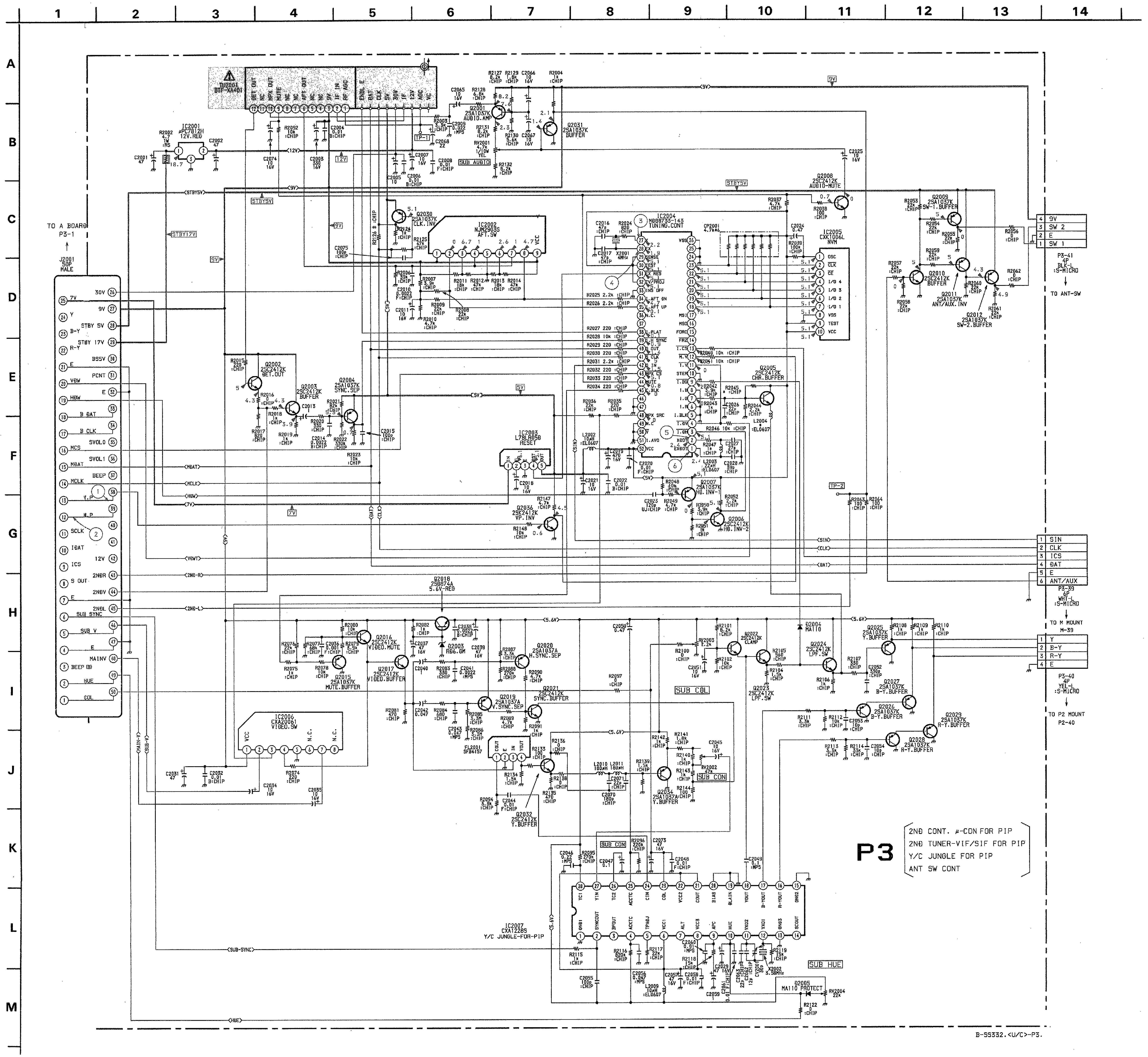
— P3 Board —


1
2
3
4
A
B
C
D
E
F
G
SONY
CAD

- ▨: Pattern from the side which enables seeing
- ■: Pattern of the rear side

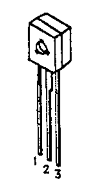
— P3 Board —



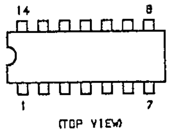

1
2
3
4
5
6
7
8
9
10
11
12
13
14
A
B
C
D
E
F
G
H
I
J
K
L
M
TO A BOARD P3-1
J2001 50P MALE
IC2001
IC2002
IC2003
IC2004
IC2005
IC2006 CXA20061 VIDEO SW
IC2007 CXA1228S Y/C JUNGLE-FOR-PIP
SUB AUDIO
SUB COL
SUB CON
SUB HUE
D2005 MA110 PROTECT
RV2004 22k
R2122 :CHIP
P3-41
TO ANT-SW
P3-40
TO M MOUNT
TO P2 MOUNT P2-40
P3
2ND CONT. μ-CON FOR PIP
2ND TUNER-VIF/SIF FOR PIP
Y/C JUNGLE FOR PIP
ANT SW CONT
B-SS332.<U/C>-P3.

6-5. SEMICONDUCTORS

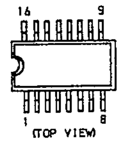
AN78N5A
μPC78N05H



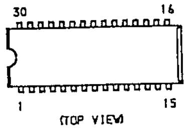
LM324
μPC1394C


14
8
1
7
(TOP VIEW)

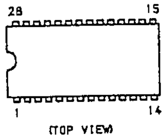
MC74HC4053F


16
9
1
8
(TOP VIEW)

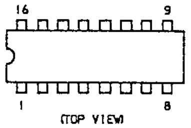
CXA1387S


30
16
1
15
(TOP VIEW)

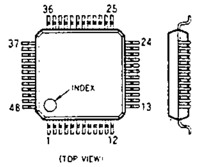
CXA1268P
SBX1694-01


28
15
1
14
(TOP VIEW)

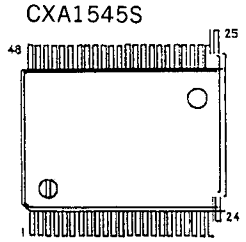
CXA1315P
IR3M02
μPD4053BC


16
9
1
8
(TOP VIEW)

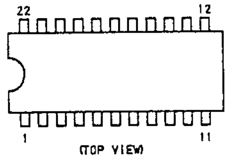
CXD2555Q


36
25
37
24
INDEX
48
13
1
12
(TOP VIEW)

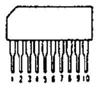
CXA1545S



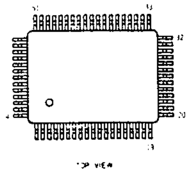
CXA1656S


22
12
1
11
(TOP VIEW)

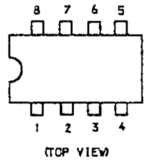
CXK1006L


1 2 3 4 5 6 7 8 9 10

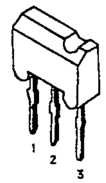
CXP5068H-081Q



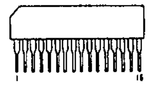
24C04AI
SDA9086-3
TL082CP
μPC393C
μPC4557C
μPC4558C


8 7 6 5
1 2 3 4
(TOP VIEW)

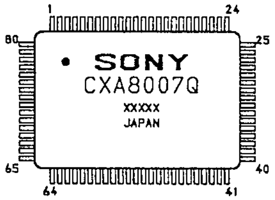
MN1280S



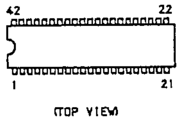
MB81256-12PSZ



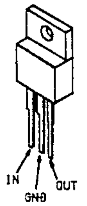
M37201M6-A18FP


1
24
80
25
SONY
CXA8007Q
XXXXX
JAPAN
65
40
64
41

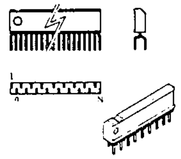
CXA1264AS
PA0036


42
22
1
21
(TOP VIEW)

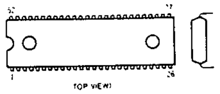
RC78M05FA
RC7812FA
RC7815FA
TA7805S
μPC7812HF



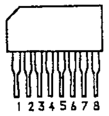
M51132L



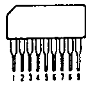
MB88733-143



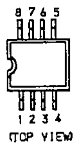
M5220L
μPC1498H



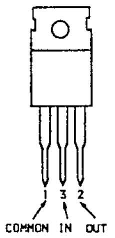
NJM2903S



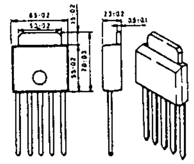
RC4558PS
μPC4570G2


8 7 6 5
1 2 3 4
(TOP VIEW)

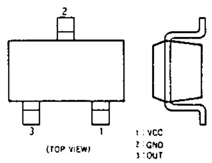
NJM78M05FA
NJM79M5FA
RC79M05FA
RC7915FA


1 3 2
COMMON IN OUT

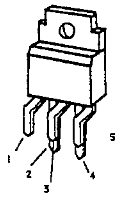
L78LR05DMA



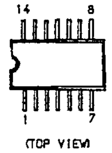
S80743ALA-7


2
1
3
(TOP VIEW)
1 : VCC
2 : GND
3 : OUT

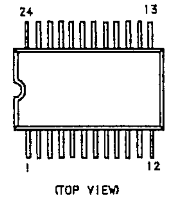
SI-3090CA



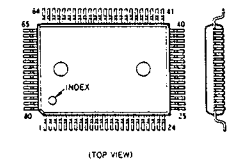
MC74HC04AF
MC33174M
M5M4C500AL-5
SN74HC05ANS


14
8
1
7
(TOP VIEW)

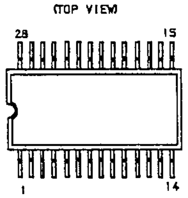
PCA8510T-012


24
13
1
12
(TOP VIEW)

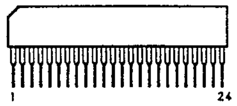
RBA402


INDEX
(TOP VIEW)

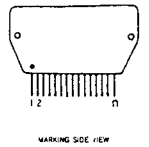
CXA1586M


(TOP VIEW)
28
15
1
14

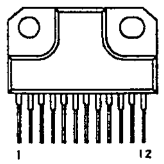
STK-4278L



STK4412


12
n
MARKING SIDE VIEW

TA8216H



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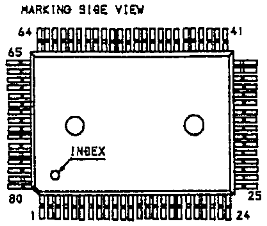
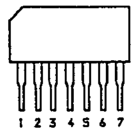
CXD1160AQ
TMC73C247-11


MARKING SIDE VIEW
64
41
65
INDEX
80
1
24
25

μPC1037HA



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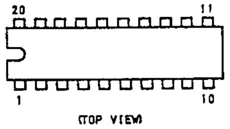
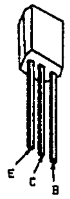
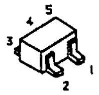

20
11
1
10
(TOP VIEW)

DTA124ES
DTC144ES
2SC3622A



FMW1
XN1501



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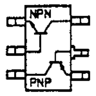
XN5501



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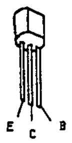
2SD788-5



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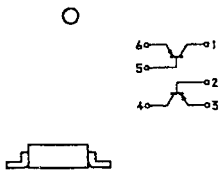

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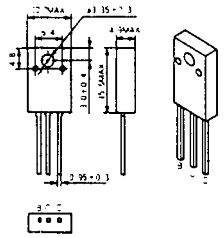

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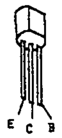

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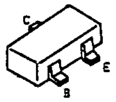
2SC2412K-QR
2SD601A-Q



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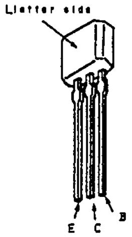
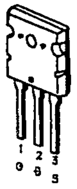

Letter side
E
C
B

2SA1301-0



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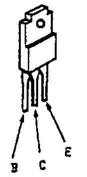

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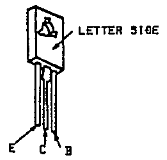
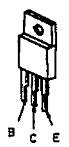
2SC2688-LK
2SC3271-P


LETTER SIDE
E
C
B

2SB861-C
2SB1094-LK
2SC3675
2SD1138-C
2SD1406-YGR



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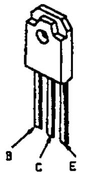

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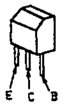

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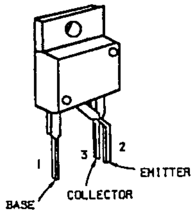
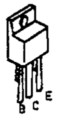

1
3
2
EMITTER
BASE
COLLECTOR

2SC4582-NP
2SD2012



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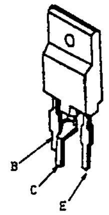
2SD1887-CA



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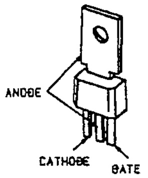
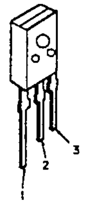

ANODE
CATHODE
GATE

D10SC6M
DSKC40H



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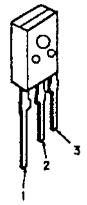

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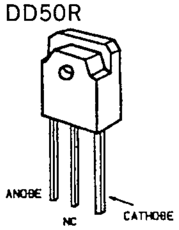
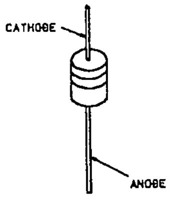
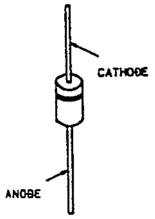

ANODE
NC
CATHODE

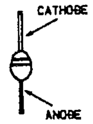
EGP10D
RB-100A
RD12ESB1
RD13ES-B2
RD15SB
RD18ES-B2
RD2.0ESB1
RD24ES-B3
RD27FB2
RD3.3ES-B2
RD3.9ES-B1
RD33ES-B2
RD39ES-B2
RD5.1ES-B1
RD5.1ES-B2
RD5.6ES-B1
RD5.6ES-B2
RD7.5ES-B1
RD9.1ESL
RD9.1EW
1SS119
1SS198


CATHODE
ANODE

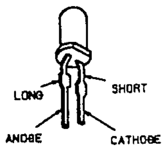
ERC06-15S
ERB81-004
ERC81-004
RU-1C
RU-2AM
S3V10SB


CATHODE
ANODE

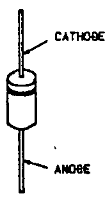
ERC38-06
U05G
V09G
V30N


CATHODE
ANODE

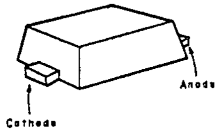
TLR124


LONG
SHORT
ANODE
CATHODE

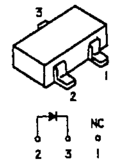
RD27FB
ERD28-08S
SB140
10E2


CATHODE
ANODE

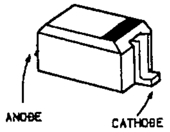
MA110
MA3130
MA5091


Anode
Cathode

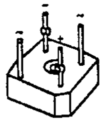
RD15M-B1
RD18MB1
RD5.1MB3



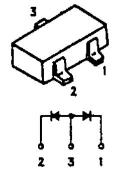
RD5.6SB
1SS352


ANODE
CATHODE

S5VB60



1S2836



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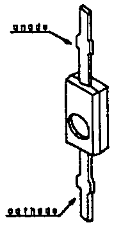

anode
cathode

SECTION 7
EXPLODED VIEWS

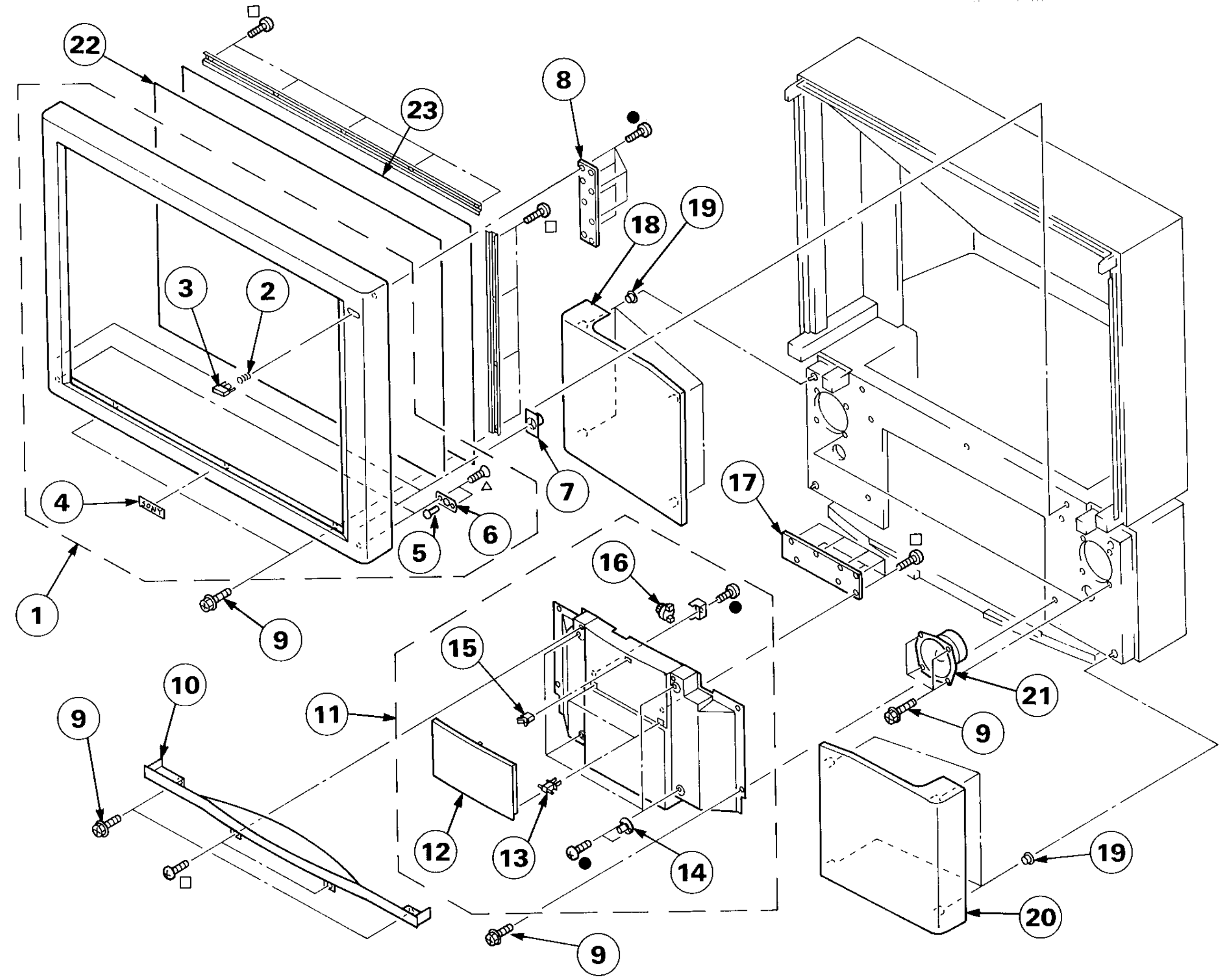
NOTE:
- Items with no part number and no description are not stocked because they are seldom required for routine service.
- The construction parts of an assembled part are indicated with a collation number in the remark column.
- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

The components identified b
shading and mark ⚠ are crit
cal for safety
Replace only with part numbe
specified

Les composants identifiès pa
une trame et par une marqu
⚠ sont d'une importanc
critique pour la sécurité N
les remplacer que par de
pièces de numéro spécifié

7-1. CONTROL PANEL

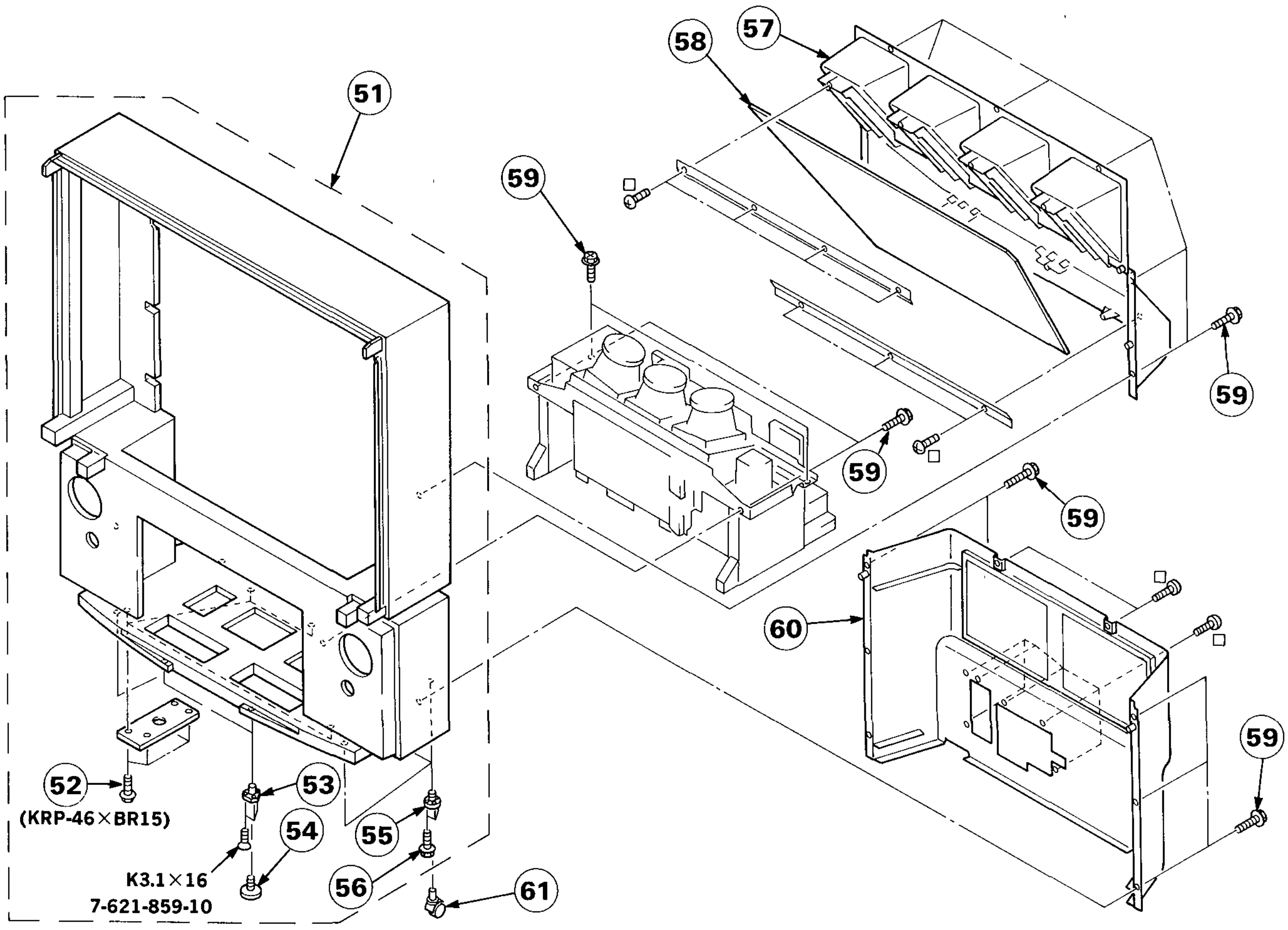
●: BVTP3×12 7-685-648-79
□: BVTP4×12 7-685 661-79
△: KTP3×12 7-685-248-14



REF NO.	PART NO.	DESCRIPTION	REMARK
1	X-4030-551-1	FRAME ASSY, SCREEN	2~6 (KPR-53XBR15(U/C))
	X-4030-568-1	FRAME ASSY, SCREEN	2~6 (KPR-46XBR15(U))
2	3-566-903-00	SPRING	
3	4-036-523-01	BUTTON, POWER	
4	4-381-079-01	EMBLEM (NO 10), SONY	
5	4-838-452-00	STRIKE	
6	4-838-453-00	SUPPORT	
7	1-544-580-21	SPEAKER (2 5CM)	
8	*1-643-591-12	H1 BOARD	
9	4-378-522-31	SCREW, TAPPING, HEXAGON HEAD	
10	4-036-470-01	ESCUTCHEON, FRONT	
11	X-4030-554-1	PANEL ASSY, CONTROL	12~16 (KPR-53XBR15(U/C))
	X-4030-571-1	PANEL ASSY, CONTROL	12~16 (KPR-46XBR15(U))
12	4-036-475-01	LID, CONTROL (KPR-53XBR15(U/C))	
	4-036-461-01	LID, CONTROL (KPR-46XBR15(U))	
13	3-703-035-11	SHAFT, LID	
14	4-843-806-00	STRIKE	
15	4-392-036-01	CATCHER, PUSH	
16	3-721-204-01	DAMPER (KPR-53XBR15(U/C))	
	3-721-204-21	DAMPER (KPR-46XBR15(U))	
17	*1-643-592-12	H2 BOARD	
18	X-4030-553-1	GRILLE (L) ASSY, SPEAKER	(KPR-53XBR15(U/C))
	X-4030-570-1	GRILLE (L) ASSY, SPEAKER(KPR-46XBR15(U))	
19	4-838-438-00	LATCH	
20	X-4030-552-1	GRILLE (R) ASSY, SPEAKER	(KPR-53XBR15(U/C))
	X-4030-569-1	GRILLE (R) ASSY, SPEAKER(KPR-46XBR15(U))	
21	1-504-141-11	SPEAKER (13CM)	
22	4-036-466-11	PLATE (L), DIFFUSION (KPR-53XBR15(U/C))	
	4-037-360-11	PLATE (L), DIFFUSION (KPR-46XBR15(U))	
23	4-036-469-11	PLATE (F), DIFFUSION (KPR-53XBR15(U/C))	
	4-037-359-11	PLATE (F), DIFFUSION (KPR-46XBR15(U))	

7-2. CABINET

□: BVTP4×12 7-685-661-79



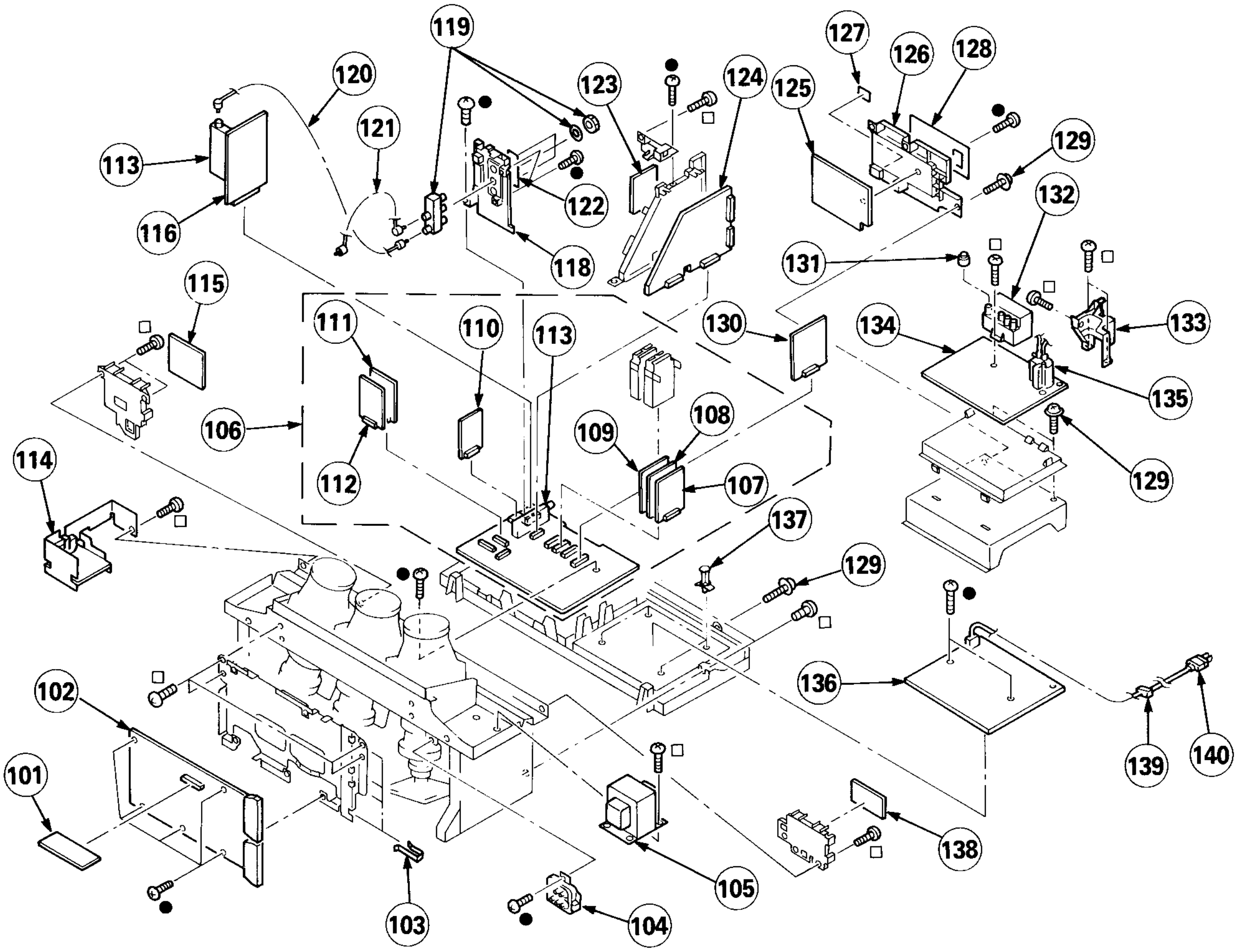
REF NO	PART NO	DESCRIPTION	REMARK
51	X-4030-572-1	CABINET ASSY (KPR-53XBR15(U/C))	53~56
	X-4030-573-1	CABINET ASSY (KPR-46XBR15(U))	52~56
52	4-378-522-21	SCREW, TAPPING, HEXAGON HEAD (KV-46XBR15(U))	
53	4-037-473-01	NUT, FITTING	
54	4-037-472-01	LEG, ADJUSTABLE	
55	4-030-850-01	SOCKET, CASTER	
56	4-378-522-01	SCREW, TAPPING, HEXAGON HEAD	
57	4-036-474-01	COVER (53"), MIRROR (KPR-53XBR15(U/C))	
	4-036-462-01	COVER (46"), MIRROR (KPR-46XBR15(U))	
58	4-037-349-01	MIRROR (53),REFLECTION(KPR-53XBR15(U/C))	
	4-037-534-01	MIRROR (46),REFLECTION (KPR-46XBR15(U))	
59	4-378-522-31	SCREW, TAPPING, HEXAGON HEAD	
60	X-4030-549-1	COVER ASSY, BACK	
61	4-032-343-11	CASTER	

Les composants identifies par une trame et une marque ⚠ sont critiques pour la securite. Ne les remplacer que par une piece portant le numero specifie.

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

7-3. CHASSIS

●: BVTP3×12 7-685-648-79
□: BVTP4×12 7-685-661-79



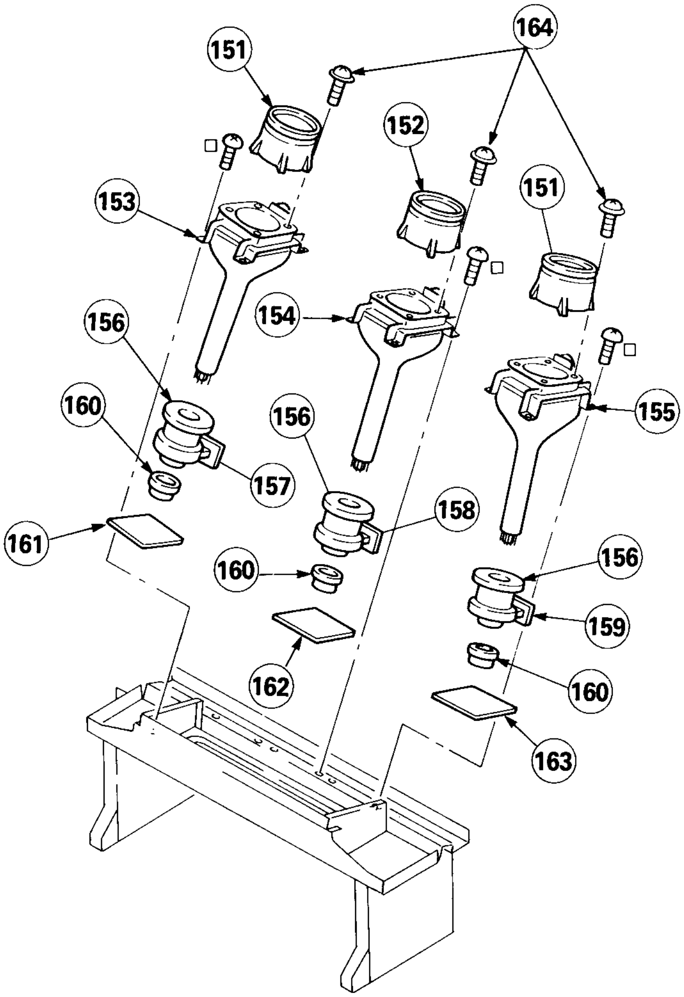
REF.NO.	PART NO.	DESCRIPTION	REMARK
101	*1-644-278-12	DS BOARD	
102	*A-1341-540-A	D BOARD, COMPLETE	
103	*4-393-401-01	SPRING	
104	⚠.1-241-744-11	RESISTOR ASSY (HIGH-VOLTAGE)	
105	⚠.1-423-311-11	TRANSFORMER, POWER	
106	*A-1296-981-A	A BOARD, COMPLETE	107~112 (KPR-53XBR15(U/C))
	*A-1296-982-A	A BOARD, COMPLETE(KPR-46XBR15(U))	107~112
107	*A-1346-093-A	E1 BOARD, COMPLETE	
108	*A-1346-060-A	E2 BOARD, COMPLETE	
109	*A-1306-417-A	M BOARD, COMPLETE	
110	*A-1195-053-A	P2 BOARD, COMPLETE	
111	*A-1394-367-A	X3 BOARD, COMPLETE	
112	*A-1394-366-A	Y2 BOARD, COMPLETE	
113	⚠.1-693-102-11	TUNER (BTF-XA401)	
114	*1-644-632-11	YA BOARD	
115	*1-643-669-11	S BOARD	
116	*A-1195-058-A	P3 BOARD, COMPLETE	
118	4-036-137-01	PANEL, SUB CONNECTOR	
119	⚠.1-417-178-11	SELECTOR, ANTENNA (AS-2)	
120	*1-557-056-31	CABLE, P-P	
121	*1-555-400-00	CABLE, PIN	
122	4-036-089-11	LABEL (C), TERMINAL	
123	*A-1195-054-A	P4 BOARD, COMPLETE	
124	*A-1394-404-A	U BOARD, COMPLETE	
125	*A-1394-405-A	UT BOARD, COMPLETE	
126	4-036-138-11	PANEL, MAIN CONNECTOR	
127	4-037-352-01	LABEL (B), TERMINAL	
128	4-036-094-11	LABEL (A), TERMINAL	
129	3-701-810-91	SCREW, TERMINAL	
130	*A-1342-177-A	V BOARD, COMPLETE	
131	4-373-137-01	CAP (Z), RUBBER	
132	⚠.1-453-108-11	DC BLOCK, HIGH-VOLTAGE	
133	4-034-482-01	COVER, FBT	
134	*A-1390-296-A	N BOARD, COMPLETE	
135	⚠.1-453-121-11	TRANSFORMER ASSY, FLYBACK (NX-1630B4)	
136	*A-1316-134-A	G BOARD, COMPLETE	
137	*3-670-570-21	SPACER, SUPPORT	
138	*1-644-633-11	YG BOARD	
139	⚠.4-388-328-11	GROMMET, AC CORD	
140	⚠.1-696-002-12	CORD, POWER (WITH NOISE FILTER)	

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifiés par une trame et par une marque ⚠ sont d'une importance critique pour la sécurité. Ne les remplacer que par des pièces de numéro spécifié.

7-4. PICTURE TUBE

☐: BVTP4×12 7-685-661-79



REF.NO.	PART NO.	DESCRIPTION	REMARK
151	4-034-057-01	LENS (LINNIT)	
152	4-034-057-11	LENS (LINNIT)	
153	⚠ .8-736-633-05	PICTURE TUBE (SD-249 (R))	
154	⚠ .8-736-631-05	PICTURE TUBE (SD-249 (G))	
155	⚠ .8-736-632-05	PICTURE TUBE (SD-249 (B))	
156	⚠ .1-451-396-21	DEFLECTION YOKE (Y936PA)	
157	*A-1390-297-A	ZR BOARD, COMPLETE	
158	*A-1390-298-A	ZG BOARD, COMPLETE	
159	*A-1390-299-A	ZB BOARD, COMPLETE	
160	⚠ .1-452-443-13	NECK ASSY, PICTURE TUBE(NA367)	
161	*A-1331-206-A	CR BOARD, COMPLETE	
162	*A-1331-207-A	CG BOARD, COMPLETE	
163	*A-1331-208-A	CB BOARD, COMPLETE	
164	3-701-810-91	SCREW, TERMINAL	

SECTION 8
ELECTRICAL PARTS LIST

NOTE:

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifies par une trame et une marque ⚠ sont critiques pour la securite.
Ne les remplacer que par une piece portant le numero specifie.

- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.

RESISTORS
- All resistors are in ohms
- F : nonflammable

When indicating parts by reference number, please include the board name.

CAPACITORS
- MF : μF, PF : μμF

COILS
- MMH : mH, UH : μH

- The components identified by ⧓ in this manual have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. Should replacement be required, replace only with the value originally used.
- There are some cases the reference number on one board overlaps on the other board. Therefore, when ordering parts by the reference number, please include the board name.

REF.NO.	PART NO.	DESCRIPTION				REMARK
	*A-1195-054-A	P4 BOARD, COMPLETE *******************				
		<CAPACITOR>				
C1201	1-124-261-00	ELECT	10MF	20%	50V	
C1202	1-163-111-00	CERAMIC CHIP	56PF	5%	50V	
C1203	1-126-177-11	ELECT	100MF	20%	6.3V	
C1204	1-124-261-00	ELECT	10MF	20%	50V	
C1205	1-163-113-00	CERAMIC CHIP	68PF	5%	50V	
C1207	1-163-105-00	CERAMIC CHIP	33PF	5%	50V	
C1208	1-124-589-11	ELECT	47MF	20%	16V	
C1209	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1210	1-124-589-11	ELECT	47MF	20%	16V	
C1211	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1212	1-124-589-11	ELECT	47MF	20%	16V	
C1213	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1214	1-124-589-11	ELECT	47MF	20%	16V	
C1215	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1216	1-163-123-00	CERAMIC CHIP	180PF	5%	50V	
C1218	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1219	1-124-589-11	ELECT	47MF	20%	16V	
C1223	1-124-589-11	ELECT	47MF	20%	16V	
C1224	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1226	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V	
C1227	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1228	1-124-589-11	ELECT	47MF	20%	16V	
C1230	1-130-483-00	MYLAR	0.01MF	5%	50V	
C1231	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C1232	1-163-017-00	CERAMIC CHIP	0.0047MF	10%	50V	
C1233	1-163-809-11	CERAMIC CHIP	0.047MF	10%	25V	
C1234	1-124-257-00	ELECT	2.2MF	20%	50V	
C1236	1-163-093-00	CERAMIC CHIP	10PF	5%	50V	
C1237	1-163-017-00	CERAMIC CHIP	0.0047MF	10%	50V	
C1238	1-124-465-00	ELECT	0.47MF	20%	50V	
C1239	1-163-235-11	CERAMIC CHIP	22PF	5%	50V	
C1242	1-124-589-11	ELECT	47MF	20%	16V	
C1243	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1244	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1245	1-124-589-11	ELECT	47MF	20%	16V	
C1246	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C1247	1-124-589-11	ELECT	47MF	20%	16V	
C1249	1-124-261-00	ELECT	10MF	20%	50V	
C1250	1-130-483-00	MYLAR	0.01MF	5%	50V	
		<FILTER>				
FL1201	1-236-620-11	FILTER, LOW PASS				
FL1202	1-236-620-11	FILTER, LOW PASS				
FL1203	1-236-620-11	FILTER, LOW PASS				

REF.NO.	PART NO.	DESCRIPTION				REMARK
		<IC>				
IC1201	8-759-112-06	IC UPC78N05H				
IC1202	8-752-055-90	IC CXA1586M				
IC1203	8-759-112-06	IC UPC78N05H				
IC1204	8-741-694-01	IC SBX1694-01				
		<COIL>				
L1201	1-414-042-21	INDUCTOR	18UH			
L1202	1-414-042-21	INDUCTOR	18UH			
L1203	1-414-042-21	INDUCTOR	18UH			
L1204	1-410-484-11	INDUCTOR	150UH			
L1205	1-414-042-21	INDUCTOR	18UH			
L1206	1-414-042-21	INDUCTOR	18UH			
		<CONNECTOR>				
P432	*1-564-522-11	PLUG, CONNECTOR 7P				
		<TRANSISTOR>				
Q1201	8-729-920-74	TRANSISTOR 2SC2412K-QR				
Q1202	8-729-920-74	TRANSISTOR 2SC2412K-QR				
Q1203	8-729-920-74	TRANSISTOR 2SC2412K-QR				
Q1204	8-729-216-22	TRANSISTOR 2SA1162-G				
Q1205	8-729-920-74	TRANSISTOR 2SC2412K-QR				
Q1206	8-729-920-74	TRANSISTOR 2SC2412K-QR				
Q1207	8-729-920-74	TRANSISTOR 2SC2412K-QR				
Q1208	8-729-216-22	TRANSISTOR 2SA1162-G				
Q1209	8-729-920-74	TRANSISTOR 2SC2412K-QR				
Q1210	8-729-920-74	TRANSISTOR 2SC2412K-QR				
Q1211	8-729-216-22	TRANSISTOR 2SA1162-G				
Q1217	8-729-920-74	TRANSISTOR 2SC2412K-QR				
Q1218	8-729-216-22	TRANSISTOR 2SA1162-G				
Q1223	8-729-216-22	TRANSISTOR 2SA1162-G				
		<RESISTOR>				
R1201	1-216-001-00	METAL GLAZE	10	5%	1/10W	
R1202	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R1203	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R1204	1-216-689-11	METAL GLAZE	39K	5%	1/10W	
R1205	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R1206	1-216-645-11	METAL CHIP	560	0.50%	1/10W	
R1207	1-216-035-00	METAL GLAZE	270	5%	1/10W	
R1208	1-216-637-11	METAL CHIP	270	0.50%	1/10W	
R1209	1-216-035-00	METAL GLAZE	270	5%	1/10W	
R1210	1-216-689-11	METAL GLAZE	39K	5%	1/10W	
R1211	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R1212	1-216-075-00	METAL GLAZE	12K	5%	1/10W	
R1213	1-216-043-00	METAL GLAZE	560	5%	1/10W	

REF.NO.	PART NO.	DESCRIPTION				REMARK
R1214	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R1215	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R1216	1-216-001-00	METAL GLAZE	10	5%	1/10W	
R1217	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R1218	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R1219	1-216-075-00	METAL GLAZE	12K	5%	1/10W	
R1220	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R1221	1-216-645-11	METAL CHIP	560	0.50%	1/10W	
R1222	1-216-035-00	METAL GLAZE	270	5%	1/10W	
R1223	1-216-639-11	METAL CHIP	330	0.50%	1/10W	
R1224	1-216-035-00	METAL GLAZE	270	5%	1/10W	
R1225	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W	
R1228	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R1229	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R1230	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R1231	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1232	1-215-857-11	METAL OXIDE	10	5%	1W	F
R1233	1-216-109-00	METAL GLAZE	330K	5%	1/10W	
R1234	1-216-109-00	METAL GLAZE	330K	5%	1/10W	
R1235	1-215-859-00	METAL OXIDE	22	5%	1W	F
R1236	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1247	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1248	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W	
R1249	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R1250	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1251	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R1253	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R1254	1-216-639-11	METAL CHIP	330	0.50%	1/10W	
R1255	1-216-620-11	METAL CHIP	51	0.50%	1/10W	
R1256	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1257	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1259	1-216-644-11	METAL CHIP	510	0.50%	1/10W	
R1260	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R1261	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R1262	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1263	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R1264	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R1265	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R1266	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W	
R1267	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R1268	1-216-071-00	METAL GLAZE	8.2K	5%	1/10W	
R1269	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1270	1-216-039-00	METAL GLAZE	390	5%	1/10W	
R1271	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R1272	1-216-001-00	METAL GLAZE	10	5%	1/10W	
R1273	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1274	1-216-630-11	METAL CHIP	130	0.50%	1/10W	
R1275	1-216-001-00	METAL GLAZE	10	5%	1/10W	
R1281	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1284	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R1286	1-216-001-00	METAL GLAZE	10	5%	1/10W	

<CRYSTAL>

X1201	1-577-611-11	OSCILALTOR, CERAMIC
X1202	1-567-878-11	VIBRATOR, CRYSTAL

****

*A-1195-058-A P3 BOARD, COMPLETE

****

<CAPACITOR>

REF.NO.	PART NO.	DESCRIPTION			REMARK
C2001	1-124-910-11	ELECT	47MF	20%	50V
C2002	1-124-910-11	ELECT	47MF	20%	50V
C2003	1-124-119-00	ELECT	330MF	20%	16V
C2004	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C2005	1-124-261-00	ELECT	10MF	20%	50V
C2006	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C2007	1-126-157-11	ELECT	10MF	20%	16V
C2008	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C2009	1-163-157-00	FILM	0.022MF	5%	50V
C2010	1-164-161-11	CERAMIC CHIP	0.0022MF		50V
C2011	1-126-157-11	ELECT	10MF	20%	16V
C2013	1-126-301-11	ELECT	1MF	20%	50V
C2014	1-164-161-11	CERAMIC CHIP	0.0022MF	10%	50V
C2015	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C2016	1-163-109-00	CERAMIC CHIP	47PF	5%	50V
C2017	1-163-109-00	CERAMIC CHIP	47PF	5%	50V
C2018	1-124-465-00	ELECT	0.47MF	20%	50V
C2019	1-126-103-11	ELECT	470MF	20%	16V
C2020	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C2021	1-126-157-11	ELECT	10MF	20%	16V
C2022	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C2023	1-163-119-00	CERAMIC CHIP	120PF	5%	50V
C2024	1-124-465-00	ELECT	0.47MF	20%	50V
C2025	1-126-157-11	ELECT	10MF	20%	16V
C2026	1-163-101-00	CERAMIC CHIP	22PF	5%	50V
C2027	1-163-103-00	CERAMIC CHIP	27PF	5%	50V
C2028	1-163-107-00	CERAMIC CHIP	39PF	5%	50V
C2029	1-124-477-11	ELECT	47MF	20%	16V
C2031	1-124-910-11	ELECT	47MF	20%	50V
C2032	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C2034	1-126-157-11	ELECT	10MF	20%	16V
C2035	1-126-157-11	ELECT	10MF	20%	16V
C2036	1-163-025-11	CERAMIC CHIP	0.001MF		50V
C2037	1-124-477-11	ELECT	47MF	20%	16V
C2038	1-164-161-11	CERAMIC CHIP	0.0022MF	10%	50V
C2039	1-124-477-11	ELECT	47MF	20%	16V
C2040	1-124-903-11	ELECT	1MF	20%	50V
C2041	1-130-475-00	MYLAR	0.0022MF	5%	50V
C2042	1-124-902-00	ELECT	0.47MF	20%	50V
C2043	1-136-493--B	FILM	0.047MF	5%	50V
C2044	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C2045	1-126-157-11	ELECT	10MF	20%	16V
C2046	1-136-169-00	FILM	0.22MF	5%	50V
C2047	1-124-463-00	ELECT	0.1MF	20%	50V
C2048	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C2049	1-136-497--B	FILM	0.1MF	5%	50V
C2050	1-124-902-00	ELECT	0.47MF	20%	50V
C2051	1-126-157-11	ELECT	10MF	20%	16V
C2052	1-163-129-00	CERAMIC CHIP	330PF	5%	50V
C2053	1-163-093-00	CERAMIC CHIP	10PF	5%	50V
C2054	1-163-093-00	CERAMIC CHIP	10PF	5%	50V
C2055	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C2056	1-136-493--B	FILM	0.047MF	5%	50V
C2057	1-124-477-11	ELECT	47MF	20%	16V
C2058	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C2059	1-124-903-11	ELECT	1MF	20%	50V
C2060	1-136-485-81	FILM	0.01MF	5%	50V
C2061	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C2062	1-163-095-00	CERAMIC CHIP	12PF	5%	50V
C2063	1-102-959-00	CERAMIC	22PF	5%	50V
C2064	1-102-121-00	CERAMIC	0.0022MF	10%	50V
C2065	1-126-157-11	ELECT	10MF	20%	16V
C2066	1-126-157-11	ELECT	10MF	20%	16V
C2067	1-126-157-11	ELECT	10MF	20%	16V

P3

REF.NO.	PART NO.	DESCRIPTION	REMARK
C2068	1-126-233-11	ELECT 22MF 20% 50V	
C2070	1-163-123-00	CERAMIC CHIP 180PF 5% 50V	
C2071	1-163-101-00	CERAMIC CHIP 22PF 5% 50V	
C2073	1-124-477-11	ELECT 47MF 20% 16V	
C2075	1-163-117-00	CERAMIC CHIP 100PF 5% 50V	

<NETWORK>

REF.NO.	PART NO.	DESCRIPTION	REMARK
CP2001	1-236-472-11	NETWORK, RES, THICK FILM	

<TRIMMER>

REF.NO.	PART NO.	DESCRIPTION	REMARK
CV2001	1-141-245-00	CAP, TRIMMER	

<DIODE>

REF.NO.	PART NO.	DESCRIPTION	REMARK
D2003	8-719-106-16	DIODE RD6.8M-B1	
D2004	8-719-404-46	DIODE MA110	
D2005	8-719-404-46	DIODE MA110	
D2007	8-719-911-19	DIODE 1SS119	

<FILTER>

REF.NO.	PART NO.	DESCRIPTION	REMARK
FL2001	1-235-941-11	YC MODULE	

<IC>

REF.NO.	PART NO.	DESCRIPTION	REMARK
IC2001	8-759-982-13	IC RC7812FA	
IC2002	8-759-700-48	IC NJM2903S	
IC2003	8-759-805-37	IC L78LR05D-MA	
IC2004	8-759-066-51	IC MB88733-143	
IC2005	8-759-803-25	IC CXK1006L	
IC2006	8-752-006-12	IC CX20061	
IC2007	8-752-033-32	IC CXA1228S	

<JACK>

REF.NO.	PART NO.	DESCRIPTION	REMARK
J2001	*1-573-962-11	CONNECTOR (MALE) 50P	

<COIL>

REF.NO.	PART NO.	DESCRIPTION	REMARK
L2002	1-410-663-31	INDUCTOR 10UH	
L2003	1-410-667-31	INDUCTOR 22UH	
L2004	1-410-663-31	INDUCTOR 10UH	
L2009	1-410-663-31	INDUCTOR 10UH	
L2010	1-410-677-31	INDUCTOR 180UH	
L2011	1-410-677-31	INDUCTOR 180UH	

<CONNECTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
P3-39	*1-564-521-11	PLUG, CONNECTOR 6P	
P3-40	*1-564-519-11	PLUG, CONNECTOR 4P	
P3-41	*1-564-519-11	PLUG, CONNECTOR 4P	

<TRANSISTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
Q2001	8-729-216-22	TRANSISTOR 2SA1162-G	
Q2002	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q2003	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q2004	8-729-216-22	TRANSISTOR 2SA1162-G	
Q2005	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q2006	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q2007	8-729-216-22	TRANSISTOR 2SA1162-G	
Q2008	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q2009	8-729-216-22	TRANSISTOR 2SA1162-G	
Q2010	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q2011	8-729-216-22	TRANSISTOR 2SA1162-G	
Q2012	8-729-216-22	TRANSISTOR 2SA1162-G	
Q2015	8-729-216-22	TRANSISTOR 2SA1162-G	
Q2016	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q2017	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q2018	8-729-420-81	TRANSISTOR 2SD874A-R	
Q2019	8-729-216-22	TRANSISTOR 2SA1162-G	
Q2020	8-729-216-22	TRANSISTOR 2SA1162-G	
Q2021	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q2022	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q2023	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q2024	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q2025	8-729-216-22	TRANSISTOR 2SA1162-G	
Q2026	8-729-216-22	TRANSISTOR 2SA1162-G	
Q2027	8-729-216-22	TRANSISTOR 2SA1162-G	
Q2028	8-729-216-22	TRANSISTOR 2SA1162-G	
Q2029	8-729-216-22	TRANSISTOR 2SA1162-G	
Q2030	8-729-216-22	TRANSISTOR 2SA1162-G	
Q2031	8-729-216-22	TRANSISTOR 2SA1162-G	
Q2032	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q2034	8-729-216-22	TRANSISTOR 2SA1162-G	
Q2036	8-729-920-74	TRANSISTOR 2SC2412K-QR	

<RESISTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
R2002	1-216-357-00	METAL OXIDE 4.7 5% 1W	F
R2003	1-216-061-00	METAL GLAZE 3.3K 5% 1/10W	
R2004	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R2006	1-216-689-11	METAL GLAZE 39K 5% 1/10W	
R2007	1-216-063-00	METAL GLAZE 3.9K 5% 1/10W	
R2008	1-216-081-00	METAL GLAZE 22K 5% 1/10W	
R2009	1-216-081-00	METAL GLAZE 22K 5% 1/10W	
R2010	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R2011	1-216-079-00	METAL GLAZE 18K 5% 1/10W	
R2012	1-216-089-00	METAL GLAZE 47K 5% 1/10W	
R2013	1-216-079-00	METAL GLAZE 18K 5% 1/10W	
R2014	1-216-089-00	METAL GLAZE 47K 5% 1/10W	
R2015	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R2016	1-216-295-00	METAL GLAZE 0 5% 1/10W	
R2017	1-216-047-00	METAL GLAZE 820 5% 1/10W	
R2018	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R2019	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R2020	1-216-037-00	METAL GLAZE 330 5% 1/10W	
R2021	1-216-095-00	METAL GLAZE 82K 5% 1/10W	
R2022	1-216-109-00	METAL GLAZE 330K 5% 1/10W	
R2023	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R2024	1-216-047-00	METAL GLAZE 820 5% 1/10W	
R2025	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W	
R2026	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W	
R2027	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R2028	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R2029	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R2030	1-216-009-00	METAL GLAZE 22 5% 1/10W	
R2031	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W	
R2032	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R2033	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R2034	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R2035	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R2036	1-216-081-00	METAL GLAZE 22K 5% 1/10W	
R2037	1-216-089-00	METAL GLAZE 47K 5% 1/10W	
R2038	1-216-097-00	METAL GLAZE 100K 5% 1/10W	
R2039	1-216-097-00	METAL GLAZE 100K 5% 1/10W	

Les composants identifies par une trame et une marque ⚠ sont critiques pour la securite. Ne les remplacer que par une piece portant le numero specifie.

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

REF.NO.	PART NO.	DESCRIPTION				REMARK
R2040	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R2041	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R2042	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W	
R2043	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R2044	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R2045	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R2046	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R2047	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R2048	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R2049	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R2050	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W	
R2051	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R2052	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R2053	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R2054	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R2055	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R2056	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R2057	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R2058	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R2059	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R2060	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R2061	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R2062	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R2063	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R2064	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R2074	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R2075	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R2076	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R2077	1-216-093-00	METAL GLAZE	68K	5%	1/10W	
R2078	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R2079	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W	
R2080	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R2081	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R2082	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R2083	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R2084	1-216-045-00	METAL GLAZE	680	5%	1/10W	
R2085	1-216-133-00	METAL GLAZE	3.3M	5%	1/10W	
R2086	1-216-133-00	METAL GLAZE	3.3M	5%	1/10W	
R2087	1-216-085-00	METAL GLAZE	33K	5%	1/10W	
R2088	1-216-107-00	METAL GLAZE	270K	5%	1/10W	
R2089	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R2090	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R2091	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R2093	1-249-441-11	CARBON	100K	5%	1/4W	
R2094	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R2095	1-216-107-00	METAL GLAZE	270K	5%	1/10W	
R2096	1-216-105-00	METAL GLAZE	220K	5%	1/10W	
R2097	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R2100	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R2101	1-216-071-00	METAL GLAZE	8.2K	5%	1/10W	
R2102	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R2104	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R2105	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R2106	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R2107	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R2108	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R2109	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R2110	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R2111	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R2112	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R2113	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R2114	1-216-085-00	METAL GLAZE	33K	5%	1/10W	
R2115	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R2116	1-216-119-00	METAL GLAZE	820K	5%	1/10W	
R2117	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R2118	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R2119	1-249-431-11	CARBON	15K	5%	1/4W	
R2122	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R2124	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R2125	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R2127	1-216-071-00	METAL GLAZE	8.2K	5%	1/10W	
R2128	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W	
R2129	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W	
R2130	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W	
R2131	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R2132	1-216-075-00	METAL GLAZE	12K	5%	1/10W	
R2133	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R2134	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R2135	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R2136	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R2138	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R2139	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R2140	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R2141	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W	
R2142	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R2143	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R2144	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R2147	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R2148	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R2149	1-249-441-11	CARBON	100K	5%	1/4W	

<VARIABLE RESISTOR>

RV2001	1-238-015-11	RES, ADJ, CARBON 4.7K
RV2002	1-238-019-11	RES, ADJ, CARBON 47K
RV2003	1-238-017-11	RES, ADJ, CARBON 22K
RV2004	1-238-017-11	RES, ADJ, CARBON 22K

<TUNER>

TU2001⚠	1-693-102-11	TUNER (BTF-XA401)

<CRYSTAL>

X2001	1-567-192-11	OSCILLATOR, CERAMIC
X2002	1-567-505-11	OSCILLATOR, CRYSTAL

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	*A-1296-981-A	A BOARD, COMPLETE (KPR-53XBR15(U/C)) *****************
	*A-1296-982-A	A BOARD; COMPLETE (KPR-46XBR15(U)) *****************
	*4-341-751-01	EYELET (EY6,EY7,EY15~EY18,EY19(KPR-46XBR15(U)),EY20(KPR-46XBR15(U)),EY29(KPR-46XBR15(U)),EY30(KPR-46XBR15(U)),EY46~EY55,EY60~EY64)
	*4-341-752-01	EYELET (EY1~EY5,EY10~EY14,EY22~EY28, EY31~EY45,EY67,EY68)
	4-382-854-11	SCREW (M3X10), P, SW (+)

<CONNECTOR>

A1	*1-564-514-11	PLUG, CONNECTOR 11P
A2	*1-564-512-11	PLUG, CONNECTOR 9P
A3	*1-564-507-11	PLUG, CONNECTOR 4P
A4	*1-564-508-11	PLUG, CONNECTOR 5P
A5	*1-564-511-11	PLUG, CONNECTOR 8P

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REF.NO.	PART NO.	DESCRIPTION			REMARK
A6	*1-564-507-11	PLUG, CONNECTOR 4P			
A7	*1-564-505-11	PLUG, CONNECTOR 2P			
A9	*1-564-505-11	PLUG, CONNECTOR 2P			
A10	*1-564-511-11	PLUG, CONNECTOR 8P			
A11	*1-564-511-11	PLUG, CONNECTOR 8P			
A12	1-573-297-11	CONNECTOR, BOARD TO BOARD 18P			
A13	1-573-297-11	CONNECTOR, BOARD TO BOARD 18P			
A14	*1-564-513-11	PLUG, CONNECTOR 10P			
A15	*1-564-508-11	PLUG, CONNECTOR 5P			
A16	*1-564-508-11	PLUG, CONNECTOR 5P			
A17	*1-564-508-11	PLUG, CONNECTOR 5P			
A18	*1-691-291-11	PIN, CONNECTOR (PC BOARD) 5P			
A19	*1-691-291-11	PIN, CONNECTOR (PC BOARD) 5P			
A20	*1-691-291-11	PIN, CONNECTOR (PC BOARD) 5P			
A21	*1-508-786-00	PIN, CONNECTOR (5MM PITCH) 2P			
A22	1-573-297-11	CONNECTOR, BOARD TO BOARD 18P			
A25	*1-564-506-11	PLUG, CONNECTOR 3P			
A27	*1-573-979-11	CONNECTOR, BOARD TO BOARD 11P			
A28	*1-564-508-11	PLUG, CONNECTOR 5P			
A38	*1-564-505-11	PLUG, CONNECTOR 2P			
P31	*1-573-960-11	CONNECTOR (FEMALE) 50P			

<CAPACITOR>

REF.NO.	PART NO.	DESCRIPTION			REMARK
C201	1-124-910-11	ELECT	47MF	20%	50V
C202	1-124-903-11	ELECT	1MF	20%	50V
C203	1-130-495-00	MYLAR	0.1MF	5%	50V
C204	1-124-477-11	ELECT	47MF	20%	16V
C205	1-124-557-11	ELECT	1000MF	20%	25V
C206	1-126-101-11	ELECT	100MF	20%	16V
C207	1-124-242-00	ELECT	33MF	20%	16V
C210	1-102-121-00	CERAMIC	0.0022MF	10%	50V
C212	1-126-803-11	ELECT	47MF	20%	16V
C213	1-126-103-11	ELECT	470MF	20%	16V
C214	1-126-101-11	ELECT	100MF	20%	16V
C215	1-126-803-11	ELECT	47MF	20%	50V
C216	1-126-101-11	ELECT	100MF	20%	16V
C217	1-126-803-11	ELECT	47MF	20%	25V
C218	1-126-103-11	ELECT	470MF	20%	16V
C219	1-124-443-00	ELECT	100MF	20%	10V
C220	1-126-803-11	ELECT	47MF	20%	25V
C223	1-126-803-11	ELECT	47MF	20%	25V
C224	1-124-261-00	ELECT	10MF	20%	50V
C225	1-124-120-11	ELECT	220MF	20%	16V
C226	1-124-120-11	ELECT	220MF	20%	16V
C227	1-124-471-00	ELECT	1000MF	20%	6.3V
C299	1-126-101-11	ELECT	100MF	20%	16V
C502	1-126-182-11	ELECT	0.47MF	20%	50V
C503	1-130-487-00	MYLAR	0.022MF	5%	50V
C504	1-136-153-00	FILM	0.01MF	5%	50V
C507	1-106-383-00	MYLAR	0.047MF		200V
C508	1-102-973-00	CERAMIC	100PF	5%	50V
C509	1-102-030-00	CERAMIC	330PF	10%	500V
C510 ⚠	1-136-565-11	FILM	0.015MF	3%	1.4KV
C512 ⚠	1-136-598-11	FILM	3MF	5%	200V
C513	1-136-153-00	FILM	0.01MF	5%	50V
C514	1-124-477-11	ELECT	47MF	20%	16V
C522	1-123-024-21	ELECT	33MF		160V
C523	1-106-383-00	MYLAR	0.047MF		200V
C528	1-124-662-11	ELECT	220MF	20%	50V
C536	1-124-662-11	ELECT	220MF	20%	50V
C537	1-124-662-11	ELECT	220MF	20%	50V
C539	1-124-907-11	ELECT	10MF	20%	50V
C542	1-136-153-00	FILM	0.01MF	5%	50V
C543	1-136-153-00	FILM	0.01MF	5%	50V
C544	1-136-153-00	FILM	0.01MF	5%	50V
C545	1-136-153-00	FILM	0.01MF	5%	50V
C569	1-126-355-11	ELECT	33MF	20%	160V
C1401	1-124-910-11	ELECT	47MF	20%	50V
C1402	1-126-157-11	ELECT	10MF	20%	16V
C1405	1-124-910-11	ELECT	47MF	20%	50V
C1406	1-126-101-11	ELECT	100MF	20%	16V
C1407	1-126-057-11	ELECT	2200MF	20%	50V
C1408	1-136-165-00	FILM	0.1MF	5%	50V
C1409	1-136-165-00	FILM	0.1MF	5%	50V
C1413	1-124-234-00	ELECT	22MF	20%	16V
C1424	1-126-057-11	ELECT	2200MF	20%	50V
C1425	1-126-057-11	ELECT	2200MF	20%	50V
C1426	1-126-157-11	ELECT	10MF	20%	16V
C1429	1-126-101-11	ELECT	100MF	20%	16V
C1430	1-126-101-11	ELECT	100MF	20%	16V
C1431	1-126-233-11	ELECT	22MF	20%	50V
C1435	1-126-233-11	ELECT	22MF	20%	25V
C1440	1-126-336-11	ELECT	220MF	20%	25V
C1601	1-130-483-00	MYLAR	0.01MF	5%	50V
C1603	1-136-153-00	FILM	0.01MF	5%	50V
C1607	1-124-907-11	ELECT	10MF	20%	50V
C1608	1-136-153-00	FILM	0.01MF	5%	50V
C1609	1-136-153-00	FILM	0.01MF	5%	50V
C1610	1-126-233-11	ELECT	22MF	20%	50V

<DIODE>

REF.NO.	PART NO.	DESCRIPTION	REMARK
D201	8-719-110-13	DIODE RD9.1ES-B2	
D202	8-719-110-13	DIODE RD9.1ES-B2	
D203	8-719-911-19	DIODE 1SS119	
D204	8-719-911-19	DIODE 1SS119	
D205	8-719-110-36	DIODE RD13ES-B2	
D206	8-719-911-19	DIODE 1SS119	
D207	8-719-911-19	DIODE 1SS119	
D208	8-719-911-19	DIODE 1SS119	
D209	8-719-911-19	DIODE 1SS119	
D211	8-719-110-36	DIODE RD13ES-B2	
D213	8-719-110-78	DIODE RD33ES-B2	
D214	8-719-911-19	DIODE 1SS119	
D215	8-719-911-19	DIODE 1SS119	
D216	8-719-911-19	DIODE 1SS119	
D217	8-719-911-19	DIODE 1SS119	
D218	8-719-911-19	DIODE 1SS119	
D219	8-719-911-19	DIODE 1SS119	
D220	8-719-510-48	DIODE D1N20R	
D221	8-719-911-19	DIODE 1SS119	
D222	8-719-911-19	DIODE 1SS119	
D223	8-719-911-19	DIODE 1SS119	
D501	8-719-971-20	DIODE ERC38-06	
D502	8-719-971-20	DIODE ERC38-06	
D503	8-719-300-80	DIODE RU-1C	
D504	8-719-109-88	DIODE RD5.6ES-B1	
D505	8-719-900-95	DIODE V09G (KPR-46XBR15(U))	
D506	8-719-900-95	DIODE V09G (KPR-46XBR15(U))	
D507	8-719-970-89	DIODE DD50R	
D509	8-719-911-19	DIODE 1SS119	
D510	8-719-109-71	DIODE RD3.9ES-B1	
D511	8-719-911-19	DIODE 1SS119	
D512	8-719-911-19	DIODE 1SS119	
D513	8-719-911-19	DIODE 1SS119	
D514	8-719-911-19	DIODE 1SS119	

A

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REF.NO.	PART NO.	DESCRIPTION	REMARK
D515	8-719-911-19	DIODE 1SS119	
D1401	8-719-911-19	DIODE 1SS119	
D1402	8-719-911-19	DIODE 1SS119	
D1403	8-719-911-19	DIODE 1SS119	
D1404	8-719-110-88	DIODE RD39ES-B2	
D1405	8-719-110-88	DIODE RD39ES-B2	
D1406	8-719-911-19	DIODE 1SS119	
D1407	8-719-110-88	DIODE RD39ES-B2	
D1408	8-719-911-19	DIODE 1SS119	
D1409	8-719-110-88	DIODE RD39ES-B2	
D1410	8-719-911-19	DIODE 1SS119	
D1607	8-719-911-19	DIODE 1SS119	
D1608	8-719-911-19	DIODE 1SS119	
D1610	8-719-911-19	DIODE 1SS119	
D1611	8-719-911-19	DIODE 1SS119	
D1612	8-719-911-19	DIODE 1SS119	
		<IC>	
IC201	8-749-920-58	IC SI-3090CA	
IC204	8-759-231-53	IC TA7805S	
IC205	8-759-112-06	IC UPC78N05H	
IC206	8-759-982-13	IC RC7812FA	
IC207	8-749-920-58	IC SI-3090CA	
IC506	8-752-057-18	IC CXA1315P	
IC1401	8-759-246-70	IC TA8216H	
IC1601	8-752-058-71	IC CXA1656S	
		<JACK>	
J202	1-507-562-00	JACK	
J203	1-507-562-00	JACK	
		<COIL>	
L201	1-408-429-00	INDUCTOR 470UH	
L205	1-410-645-31	INDUCTOR 100UH	
L206	1-408-416-00	INDUCTOR 39UH	
L212	1-410-312-11	INDUCTOR 0.22UH	
L501 ⚠	1-460-196-11	COIL, HORIZONTAL LINEARITY	
L502	1-459-313-00	COIL WITH CORE (HWC)	
L515	1-410-645-31	INDUCTOR 100UH	
		<TRANSISTOR>	
Q201	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q202	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q203	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q501	8-729-119-80	TRANSISTOR 2SC2688-LK	
Q502	8-729-014-88	TRANSISTOR 2SC4891-CA	
Q504	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q505	8-729-201-32	TRANSISTOR 2SA1013-O	
Q506	8-729-201-32	TRANSISTOR 2SA1013-O	
Q507	8-729-304-92	TRANSISTOR 2SB649A-C	
Q508	8-729-204-16	TRANSISTOR 2SA1301-O	
Q509	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q510	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q511	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q512	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q1401	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q1402	8-729-900-63	TRANSISTOR DTA124ES	
Q1407	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q1408	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q1601	8-729-119-78	TRANSISTOR 2SC2785-HFE	

REF.NO.	PART NO.	DESCRIPTION	REMARK
Q1602	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q1603	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q1604	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q1605	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q1606	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q1619	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q1620	8-729-119-78	TRANSISTOR 2SC2785-HFE	
		<RESISTOR>	
R201	1-249-405-11	CARBON 100 5% 1/4W	F
R202	1-249-405-11	CARBON 100 5% 1/4W	F
R203	1-249-425-11	CARBON 4.7K 5% 1/4W	
R204	1-249-441-11	CARBON 100K 5% 1/4W	
R209	1-249-409-11	CARBON 220 5% 1/4W	
R214	1-249-429-11	CARBON 10K 5% 1/4W	
R215	1-249-437-11	CARBON 47K 5% 1/4W	
R216	1-249-377-11	CARBON 0.47 5% 1/4W	F
R219	1-249-426-11	CARBON 5.6K 5% 1/4W	
R221	1-249-409-11	CARBON 220 5% 1/4W	
R222	1-249-436-11	CARBON 39K 5% 1/4W	
R223	1-249-434-11	CARBON 27K 5% 1/4W	
R224	1-249-409-11	CARBON 220 5% 1/4W	
R225	1-249-417-11	CARBON 1K 5% 1/4W	
R229	1-215-921-11	METAL OXIDE 4.7K 5% 3W	F
R230	1-215-921-11	METAL OXIDE 4.7K 5% 3W	F
R231	1-249-409-11	CARBON 220 5% 1/4W	F
R232	1-216-469-11	METAL OXIDE 12 5% 3W	F
R233	1-249-409-11	CARBON 220 5% 1/4W	
R234	1-249-409-11	CARBON 220 5% 1/4W	
R235	1-249-409-11	CARBON 220 5% 1/4W	
R236	1-249-409-11	CARBON 220 5% 1/4W	
R237	1-249-409-11	CARBON 220 5% 1/4W	
R238	1-249-409-11	CARBON 220 5% 1/4W	
R239	1-249-409-11	CARBON 220 5% 1/4W	
R240	1-216-469-11	METAL OXIDE 12 5% 3W	F
R241	1-249-401-11	CARBON 47 5% 1/4W	
R242	1-216-469-11	METAL OXIDE 12 5% 3W	F
R243	1-207-671-00	WIREWOUND 1.5 10% 5W	F
R244	1-207-676-00	WIREWOUND 6.8 10% 5W	F
R296	1-249-417-11	CARBON 1K 5% 1/4W	
R501	1-247-895-00	CARBON 470K 5% 1/4W	
R502	1-249-377-11	CARBON 0.47 5% 1/4W	F
R503	1-249-377-11	CARBON 0.47 5% 1/4W	F
R504	1-249-417-11	CARBON 1K 5% 1/4W	
R505	1-249-423-11	CARBON 3.3K 5% 1/4W	
R506	1-215-923-00	METAL OXIDE 10K 5% 3W	F
R507	1-249-429-11	CARBON 10K 5% 1/4W	F
R508	1-216-373-11	METAL OXIDE 2.2 5% 2W	F
R509	1-216-478-11	METAL OXIDE 390 5% 3W	F
R511	1-249-407-11	CARBON 150 5% 1/4W	
R512	1-249-421-11	CARBON 2.2K 5% 1/4W	F
R513	1-249-417-11	CARBON 1K 5% 1/4W	
R514	1-216-441-00	METAL OXIDE 27K 5% 1W	F

Les composants identifies par une trame et une marque ⚠ sont critiques pour la securite. Ne les remplacer que par une piece portant le numero specifie

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

REF.NO.	PART NO.	DESCRIPTION				REMARK
R515	1-249-432-11	CARBON	18K	5%	1/4W	F
R516	1-249-417-11	CARBON	1K	5%	1/4W	
R517	1-249-427-11	CARBON	6.8K	5%	1/4W	F
R518	1-249-422-11	CARBON	2.7K	5%	1/4W	F
R519	1-249-417-11	CARBON	1K	5%	1/4W	F
R520	1-215-925-11	METAL OXIDE	22K	5%	3W	F
R521	1-215-925-11	METAL OXIDE	22K	5%	3W	F
R522	1-249-421-11	CARBON	2.2K	5%	1/4W	
R523	1-249-434-11	CARBON	27K	5%	1/4W	
R524	1-249-434-11	CARBON	27K	5%	1/4W	
R525	1-215-923-00	METAL OXIDE	10K	5%	3W	F
R526	1-249-417-11	CARBON	1K	5%	1/4W	
R528	1-216-447-00	METAL OXIDE	27	5%	2W	F
R529	1-216-447-00	METAL OXIDE	27	5%	2W	F
R530	1-249-431-11	CARBON	15K	5%	1/4W	
R531	1-249-431-11	CARBON	15K	5%	1/4W	
R532	1-249-385-11	CARBON	2.2	5%	1/4W	F
R533	1-249-405-11	CARBON	100	5%	1/4W	
R534	1-249-405-11	CARBON	100	5%	1/4W	
R535	1-249-405-11	CARBON	100	5%	1/4W	
R536	1-217-316-00	WIREWOUND	330	10%	5W	F (KPR-46XBR15(U))
R537	1-217-316-00	WIREWOUND	330	10%	5W	F (KPR-46XBR15(U))
R550	1-249-385-11	CARBON	2.2	5%	1/4W	F
R558	1-249-385-11	CARBON	2.2	5%	1/4W	F
R559	1-249-409-11	CARBON	220	5%	1/4W	
R560	1-249-409-11	CARBON	220	5%	1/4W	
R563	1-249-429-11	CARBON	10K	5%	1/4W	
R564	1-249-429-11	CARBON	10K	5%	1/4W	
R565	1-249-427-11	CARBON	6.8K	5%	1/4W	
R566	1-249-427-11	CARBON	6.8K	5%	1/4W	
R567	1-249-427-11	CARBON	6.8K	5%	1/4W	
R568	1-249-427-11	CARBON	6.8K	5%	1/4W	
R569	1-249-426-11	CARBON	5.6K	5%	1/4W	
R570	1-249-441-11	CARBON	100K	5%	1/4W	
R571	1-249-429-11	CARBON	10K	5%	1/4W	
R572	1-249-429-11	CARBON	10K	5%	1/4W	
R574	1-249-417-11	CARBON	1K	5%	1/4W	
R579	1-249-417-11	CARBON	1K	5%	1/4W	
R1401	1-215-445-00	METAL	10K	1%	1/4W	
R1402	1-215-445-00	METAL	10K	1%	1/4W	
R1403	1-215-445-00	METAL	10K	1%	1/4W	
R1404	1-215-445-00	METAL	10K	1%	1/4W	
R1405	1-249-385-11	CARBON	2.2	5%	1/4W	F
R1406	1-249-385-11	CARBON	2.2	5%	1/4W	F
R1409	1-249-433-11	CARBON	22K	5%	1/4W	
R1410	1-249-433-11	CARBON	22K	5%	1/4W	
R1411	1-249-437-11	CARBON	47K	5%	1/4W	
R1427	1-215-865-11	METAL OXIDE	220	5%	1W	F
R1428	1-215-865-11	METAL OXIDE	220	5%	1W	F
R1431	1-249-405-11	CARBON	100	5%	1/4W	
R1433	1-249-425-11	CARBON	4.7K	5%	1/4W	
R1434	1-249-423-11	CARBON	3.3K	5%	1/4W	
R1439	1-247-883-00	CARBON	150K	5%	1/4W	
R1440	1-249-417-11	CARBON	1K	5%	1/4W	
R1442	1-249-398-11	CARBON	27	5%	1/4W	
R1443	1-249-398-11	CARBON	27	5%	1/4W	
R1520	1-249-429-11	CARBON	10K	5%	1/4W	
R1601	1-249-423-11	CARBON	3.3K	5%	1/4W	
R1602	1-249-417-11	CARBON	1K	5%	1/4W	
R1603	1-249-423-11	CARBON	3.3K	5%	1/4W	
R1604	1-249-405-11	CARBON	100	5%	1/4W	
R1605	1-249-405-11	CARBON	100	5%	1/4W	
R1606	1-249-405-11	CARBON	100	5%	1/4W	
R1607	1-249-415-11	CARBON	680	5%	1/4W	
R1608	1-249-415-11	CARBON	680	5%	1/4W	
R1609	1-249-415-11	CARBON	680	5%	1/4W	
R1610	1-249-405-11	CARBON	100	5%	1/4W	
R1611	1-249-405-11	CARBON	100	5%	1/4W	
R1612	1-249-405-11	CARBON	100	5%	1/4W	
R1613	1-249-423-11	CARBON	3.3K	5%	1/4W	
R1614	1-249-411-11	CARBON	330	5%	1/4W	
R1617	1-249-425-11	CARBON	4.7K	5%	1/4W	
R1618	1-249-430-11	CARBON	12K	5%	1/4W	
R1622	1-249-423-11	CARBON	3.3K	5%	1/4W	
R1624	1-249-424-11	CARBON	3.9K	5%	1/4W	
R1627	1-249-429-11	CARBON	10K	5%	1/4W	
R1630	1-249-434-11	CARBON	27K	5%	1/4W	
R1631	1-249-417-11	CARBON	1K	5%	1/4W	
R1654	1-249-433-11	CARBON	22K	5%	1/4W	
R1656	1-249-397-11	CARBON	22	5%	1/4W	
R1657	1-249-397-11	CARBON	22	5%	1/4W	
R1658	1-249-397-11	CARBON	22	5%	1/4W	

<TRANSFORMER>

T501 ⚠	1-439-545-11	TRANSFORMER, FERRITE
T502 ⚠	1-437-078-11	TRANSFORMER, HORIZONTAL DRIVE

<TUNER>

TU101 ⚠	1-693-102-11	TUNER (BTF-XA401)

****

*A-1195-053-A P2 BOARD, COMPLETE
****

*1-564-520-11 PLUG, CONNECTOR 5P

<CAPACITOR>

C3001	1-163-111-00	CERAMIC CHIP	56PF	5%	50V
C3002	1-163-127-00	CERAMIC CHIP	270PF	5%	50V
C3003	1-163-127-00	CERAMIC CHIP	270PF	5%	50V
C3004	1-124-034-51	ELECT	33MF	20%	16V
C3005	1-124-034-51	ELECT	33MF	20%	16V
C3006	1-126-177-11	ELECT	100MF	20%	6.3V
C3007	1-126-177-11	ELECT	100MF	20%	6.3V
C3008	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C3009	1-163-119-00	CERAMIC CHIP	120PF	5%	50V
C3010	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C3011	1-163-119-00	CERAMIC CHIP	120PF	5%	50V
C3012	1-163-017-00	CERAMIC CHIP	0.0047MF	10%	50V
C3013	1-163-017-00	CERAMIC CHIP	0.0047MF	10%	50V
C3014	1-163-141-00	CERAMIC CHIP	0.001MF	5%	50V
C3015	1-130-483-00	MYLAR	0.01MF	5%	50V
C3016	1-126-177-11	ELECT	100MF	20%	6.3V
C3017	1-126-301-11	ELECT	1MF	20%	50V
C3018	1-130-477-00	MYLAR	0.0033MF	5%	50V
C3019	1-163-127-00	CERAMIC CHIP	270PF	5%	50V
C3020	1-163-121-00	CERAMIC CHIP	150PF	5%	50V
C3021	1-163-101-00	CERAMIC CHIP	22PF	5%	50V
C3022	1-163-115-00	CERAMIC CHIP	82PF	5%	50V
C3023	1-126-301-11	ELECT	1MF	20%	50V
C3024	1-126-177-11	ELECT	100MF	20%	6.3V
C3025	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V

P2

REF.NO.	PART NO.	DESCRIPTION				REMARK
C3026	1-163-101-00	CERAMIC CHIP	22PF	5%	50V	
C3027	1-124-034-51	ELECT	33MF	20%	16V	
C3028	1-163-085-00	CERAMIC CHIP	2PF	0.25PF	50V	
C3029	1-163-097-00	CERAMIC CHIP	15PF	5%	50V	
C3030	1-124-034-51	ELECT	33MF	20%	16V	
C3031	1-126-096-11	ELECT	10MF	20%	25V	
C3032	1-130-479-00	MYLAR	0.0047MF	5%	50V	
C3033	1-124-465-00	ELECT	0.47MF	20%	50V	
C3034	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C3035	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C3036	1-124-034-51	ELECT	33MF	20%	16V	
C3037	1-126-163-11	ELECT	4.7MF	20%	50V	
C3038	1-124-034-51	ELECT	33MF	20%	16V	
C3039	1-126-163-11	ELECT	4.7MF	20%	50V	
C3040	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C3041	1-124-034-51	ELECT	33MF	20%	16V	
C3042	1-130-491-00	MYLAR	0.047MF	5%	50V	
C3043	1-124-465-00	ELECT	0.47MF	20%	50V	
C3044	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C3045	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C3046	1-126-177-11	ELECT	100MF	20%	6.3V	
C3047	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C3049	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C3050	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C3051	1-124-034-51	ELECT	33MF	20%	16V	
C3052	1-126-101-11	ELECT	100MF	20%	16V	
C3054	1-124-261-00	ELECT	10MF	20%	50V	
C3057	1-124-478-11	ELECT	100MF	20%	25V	
C3058	1-124-478-11	ELECT	100MF	20%	25V	

<NETWORK>

CP3001	1-236-176-11	NETWORK, RES, THICK FILM
CP3002	1-236-176-11	NETWORK, RES, THICK FILM
CP3003	1-236-176-11	NETWORK, RES, THICK FILM

<DIODE>

D3002	8-713-300-57	DIODE 1T33
D3003	8-713-300-57	DIODE 1T33
D3004	8-719-404-46	DIODE MA110

<FILTER>

FL3001	1-236-129-11	ENCAPSULATED COMPONENT
FL3002	1-236-129-11	ENCAPSULATED COMPONENT
FL3003	1-236-129-11	ENCAPSULATED COMPONENT
FL3004	1-236-071-11	ENCAPSULATED COMPONENT
FL3005	1-236-071-11	ENCAPSULATED COMPONENT
FL3006	1-236-129-11	ENCAPSULATED COMPONENT
FL3007	1-236-164-11	ENCAPSULATED COMPONENT
FL3008	1-236-163-11	ENCAPSULATED COMPONENT
FL3009	1-236-164-11	ENCAPSULATED COMPONENT
FL3010	1-236-129-11	ENCAPSULATED COMPONENT
FL3011	1-236-163-11	ENCAPSULATED COMPONENT
FL3012	1-236-163-11	ENCAPSULATED COMPONENT
FL3013	1-236-163-11	ENCAPSULATED COMPONENT
FL3014	1-236-129-11	ENCAPSULATED COMPONENT

<IC>

IC3001	8-759-032-11	IC MC74HC04AF
IC3002	8-759-032-11	IC MC74HC04AF
IC3003	8-752-332-83	IC CXD1220AQ
IC3004	8-759-637-41	IC M5M4C500AL-5
IC3005	8-759-605-14	IC M52678P
IC3006	8-759-637-41	IC M5M4C500AL-5
IC3007	8-759-011-65	IC MC74HC4053F
IC3008	8-759-637-41	IC M5M4C500AL-5
IC3009	8-759-605-14	IC M52678P
IC3010	8-759-112-06	IC UPC78N05H
IC3011	8-759-049-49	IC UPC7893AHF

<JACK>

J3001	*1-573-965-11	PIN, CONNECTOR (PC BOARD) 50P

<COIL>

L3001	1-410-470-11	INDUCTOR	10UH
L3002	1-410-470-11	INDUCTOR	10UH
L3003	1-410-470-11	INDUCTOR	10UH
L3004	1-410-470-11	INDUCTOR	10UH
L3005	1-408-421-00	INDUCTOR	100UH
L3006	1-408-421-00	INDUCTOR	100UH
L3007	1-408-424-00	INDUCTOR	180UH
L3008	1-408-427-00	INDUCTOR	330UH

<CONNECTOR>

P240	*1-564-519-11	PLUG, CONNECTOR 4P

<TRANSISTOR>

Q3001	8-729-920-74	TRANSISTOR 2SC2412K-QR
Q3002	8-729-920-74	TRANSISTOR 2SC2412K-QR
Q3003	8-729-216-22	TRANSISTOR 2SA1162-G
Q3004	8-729-920-74	TRANSISTOR 2SC2412K-QR
Q3005	8-729-216-22	TRANSISTOR 2SA1162-G
Q3006	8-729-216-22	TRANSISTOR 2SA1162-G
Q3007	8-729-216-22	TRANSISTOR 2SA1162-G
Q3008	8-729-216-22	TRANSISTOR 2SA1162-G
Q3009	8-729-920-74	TRANSISTOR 2SC2412K-QR
Q3010	8-729-920-74	TRANSISTOR 2SC2412K-QR
Q3011	8-729-920-74	TRANSISTOR 2SC2412K-QR
Q3012	8-729-920-74	TRANSISTOR 2SC2412K-QR
Q3013	8-729-920-74	TRANSISTOR 2SC2412K-QR
Q3014	8-729-920-74	TRANSISTOR 2SC2412K-QR
Q3015	8-729-920-74	TRANSISTOR 2SC2412K-QR

<RESISTOR>

R3001	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R3002	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R3003	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R3005	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W
R3006	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R3007	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R3008	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R3009	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R3010	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R3011	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R3012	1-216-093-00	METAL GLAZE	68K	5%	1/10W
R3013	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R3014	1-216-091-00	METAL GLAZE	56K	5%	1/10W
R3015	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R3016	1-216-093-00	METAL GLAZE	68K	5%	1/10W
R3017	1-216-077-00	METAL GLAZE	15K	5%	1/10W

REF.NO.	PART NO.	DESCRIPTION				REMARK
R3018	1-216-091-00	METAL GLAZE	56K	5%	1/10W	
R3019	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R3020	1-216-017-00	METAL GLAZE	47	5%	1/10W	
R3021	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R3022	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R3024	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R3025	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R3026	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R3027	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R3028	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R3029	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R3030	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R3031	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R3032	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R3033	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R3034	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R3035	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R3036	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R3037	1-216-047-00	METAL GLAZE	820	5%	1/10W	
R3038	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R3039	1-216-051-00	METAL GLAZE	1.2K	5%	1/10W	
R3040	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R3041	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R3042	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R3043	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R3044	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R3045	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R3046	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R3047	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R3048	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R3049	1-216-662-11	METAL CHIP	3K	0.50%	1/10W	
R3050	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W	
R3051	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R3052	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R3054	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W	
R3055	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R3056	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W	
R3057	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W	
R3058	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R3059	1-216-689-11	METAL GLAZE	39K	5%	1/10W	
R3060	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W	
R3061	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W	
R3062	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W	
R3063	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R3064	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W	
R3065	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R3066	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R3067	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R3068	1-216-071-00	METAL GLAZE	8.2K	5%	1/10W	
R3069	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W	
R3070	1-216-047-00	METAL GLAZE	820	5%	1/10W	
R3071	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W	
R3072	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W	
R3073	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W	
R3074	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R3080	1-216-358-11	METAL OXIDE	5.6	5%	1W	F

<VARIABLE RESISTOR>

RV3001	1-238-012-11	RES, ADJ, CARBON 1K
RV3002	1-238-012-11	RES, ADJ, CARBON 1K

<TRANSFORMER>

REF.NO.	PART NO.	DESCRIPTION	REMARK
T3001	1-404-607-11	COIL	
T3002	1-404-607-11	COIL	

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*A-1306-417-A M BOARD, COMPLETE
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<CAPACITOR>

C001	1-124-261-00	ELECT	10MF	20%	50V
C002	1-163-125-00	CERAMIC CHIP	220PF	5%	50V
C003	1-136-161-00	FILM	0.047MF	5%	50V
C004	1-126-301-11	ELECT	1MF	20%	50V
C005	1-163-125-00	CERAMIC CHIP	220PF	5%	50V
C014	1-124-910-11	ELECT	47MF	20%	50V
C015	1-124-464-11	ELECT	0.22MF	20%	50V
C017	1-124-589-11	ELECT	47MF	20%	16V
C018	1-163-141-00	CERAMIC CHIP	0.001MF	5%	50V
C019	1-164-695-11	CERAMIC CHIP	0.0022MF	5%	50V
C020	1-163-241-11	CERAMIC CHIP	39PF	5%	50V
C021	1-163-239-11	CERAMIC CHIP	33PF	5%	50V
C029	1-163-115-00	CERAMIC CHIP	82PF	5%	50V
C030	1-163-115-00	CERAMIC CHIP	82PF	5%	50V
C034	1-163-125-00	CERAMIC CHIP	220PF	5%	50V
C035	1-163-125-00	CERAMIC CHIP	220PF	5%	50V
C036	1-163-125-00	CERAMIC CHIP	220PF	5%	50V
C041	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C042	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C045	1-163-125-00	CERAMIC CHIP	220PF	5%	50V
C047	1-124-261-00	ELECT	10MF	20%	50V
C048	1-124-261-00	ELECT	10MF	20%	50V
C049	1-124-261-00	ELECT	10MF	20%	50V
C055	1-163-809-11	CERAMIC CHIP	0.047MF	10%	25V
C064	1-163-121-00	CERAMIC CHIP	150PF	5%	50V
C065	1-124-257-00	ELECT	2.2MF	20%	50V

<DIODE>

D001	8-719-404-46	DIODE MA110
D002	8-719-404-46	DIODE MA110
D003	8-719-404-46	DIODE MA110
D004	8-719-404-46	DIODE MA110
D005	8-719-404-46	DIODE MA110
D006	8-719-404-46	DIODE MA110
D007	8-719-404-46	DIODE MA110
D008	8-719-404-46	DIODE MA110
D009	8-719-404-46	DIODE MA110
D010	8-713-300-57	DIODE 1T33
D011	8-719-404-46	DIODE MA110
D012	8-719-404-46	DIODE MA110
D015	8-719-404-46	DIODE MA110

<IC>

IC001	8-759-095-47	IC TMC73C247-08
IC002	8-759-403-44	IC MN1280-S

<COIL>

L001	1-408-409-00	INDUCTOR	10UH
L002	1-410-476-11	INDUCTOR	33UH

M

REF.NO.	PART NO.	DESCRIPTION	REMARK
		<CONNECTOR>	
M001	*1-573-965-11	PIN, CONNECTOR (PC BOARD) 50P	
M39	*1-564-521-11	PLUG, CONNECTOR 6P	
M45	*1-564-523-11	PLUG, CONNECTOR 8P	
		<TRANSISTOR>	
Q001	8-729-216-22	TRANSISTOR 2SA1162-G	
Q002	8-729-216-22	TRANSISTOR 2SA1162-G	
Q003	8-729-216-22	TRANSISTOR 2SA1162-G	
Q004	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q005	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q006	8-729-216-22	TRANSISTOR 2SA1162-G	
Q007	8-729-216-22	TRANSISTOR 2SA1162-G	
Q008	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q009	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q010	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q011	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q012	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q013	8-729-216-22	TRANSISTOR 2SA1162-G	
Q014	8-729-920-74	TRANSISTOR 2SC2412K-QR	
		<RESISTOR>	
R001	1-216-045-00	METAL GLAZE 680 5% 1/10W	
R002	1-216-097-00	METAL GLAZE 100K 5% 1/10W	
R003	1-216-121-00	METAL GLAZE 1M 5% 1/10W	
R004	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R005	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R006	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R007	1-216-027-00	METAL GLAZE 120 5% 1/10W	
R008	1-216-041-00	METAL GLAZE 470 5% 1/10W	
R009	1-216-027-00	METAL GLAZE 120 5% 1/10W	
R011	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R012	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R013	1-216-067-00	METAL GLAZE 5.6K 5% 1/10W	
R014	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W	
R015	1-216-089-00	METAL GLAZE 47K 5% 1/10W	
R016	1-216-067-00	METAL GLAZE 5.6K 5% 1/10W	
R017	1-216-067-00	METAL GLAZE 5.6K 5% 1/10W	
R018	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R019	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R020	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R021	1-216-097-00	METAL GLAZE 100K 5% 1/10W	
R022	1-216-089-00	METAL GLAZE 47K 5% 1/10W	
R023	1-216-093-00	METAL GLAZE 68K 5% 1/10W	
R024	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R025	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R026	1-216-081-00	METAL GLAZE 22K 5% 1/10W	
R027	1-216-041-00	METAL GLAZE 470 5% 1/10W	
R028	1-216-023-00	METAL GLAZE 82 5% 1/10W	
R029	1-216-097-00	METAL GLAZE 100K 5% 1/10W	
R030	1-216-097-00	METAL GLAZE 100K 5% 1/10W	
R031	1-216-089-00	METAL GLAZE 47K 5% 1/10W	
R032	1-216-089-00	METAL GLAZE 47K 5% 1/10W	
R033	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R034	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R035	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R036	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R037	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R038	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R039	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R040	1-216-089-00	METAL GLAZE 47K 5% 1/10W	
R041	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R042	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R043	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R044	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R045	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R046	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R047	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R048	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R049	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R050	1-216-295-00	METAL GLAZE 0 5% 1/10W	
R051	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R052	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R053	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R054	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R055	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R056	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R057	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R058	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R059	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R060	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R063	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R064	1-216-053-00	METAL GLAZE 1.5K 5% 1/10W	
R065	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R066	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R067	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R068	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R069	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R070	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R071	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R072	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R073	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W	
R074	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R075	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R076	1-216-089-00	METAL GLAZE 47K 5% 1/10W	
R077	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W	
R078	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R079	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R080	1-216-061-00	METAL GLAZE 3.3K 5% 1/10W	
R081	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R082	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R083	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R084	1-216-097-00	METAL GLAZE 100K 5% 1/10W	
R085	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R086	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R087	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R088	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R089	1-216-089-00	METAL GLAZE 47K 5% 1/10W	
R090	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R091	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R093	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R094	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R095	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R096	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R097	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R098	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R099	1-216-089-00	METAL GLAZE 47K 5% 1/10W	
R100	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R101	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R102	1-216-089-00	METAL GLAZE 47K 5% 1/10W	
R103	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R104	1-216-033-00	METAL GLAZE 220 5% 1/10W	

<CRYSTAL>

REF.NO.	PART NO.	DESCRIPTION
X001	1-579-743-11	VIBRATOR, CRYSTAL

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*A-1346-093-A E1 BOARD, COMPLETE
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<CAPACITOR>

REF.NO.	PART NO.	DESCRIPTION			REMARK
C301	1-163-010-11	CERAMIC CHIP	0.0012MF	10%	50V
C303	1-126-157-11	ELECT	10MF	20%	16V
C304	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C305	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C306	1-102-973-00	CERAMIC	100PF	5%	50V
C309	1-164-505-11	CERAMIC CHIP	2.2MF		16V
C310	1-163-109-00	CERAMIC CHIP	47PF	5%	50V
C314	1-124-915-11	ELECT	10MF	20%	16V
C315	1-164-505-11	CERAMIC CHIP	2.2MF		16V
C319	1-126-157-11	ELECT	10MF	20%	16V
C320	1-124-465-00	ELECT	0.47MF	20%	50V
C321	1-163-125-00	CERAMIC CHIP	220PF	5%	50V
C322	1-163-003-11	CERAMIC CHIP	330PF	10%	50V
C323	1-163-099-00	CERAMIC CHIP	18PF	5%	50V
C324	1-124-234-00	ELECT	22MF	20%	16V
C325	1-137-502-11	FILM CHIP	0.1MF	5%	25V
C326	1-137-502-11	FILM CHIP	0.1MF	5%	25V
C327	1-137-502-11	FILM CHIP	0.1MF	5%	25V
C328	1-126-157-11	ELECT	10MF	20%	16V
C329	1-126-157-11	ELECT	10MF	20%	16V
C330	1-126-157-11	ELECT	10MF	20%	16V
C331	1-126-301-11	ELECT	1MF	20%	50V
C332	1-124-584-00	ELECT	100MF	20%	10V
C333	1-163-037-11	CERAMIC CHIP	0.022MF	10%	25V
C334	1-137-491-11	FILM CHIP	0.1MF	5%	25V
C335	1-136-169-00	FILM	0.22MF	5%	50V
C336	1-126-301-11	ELECT	1MF	20%	50V
C337	1-126-301-11	ELECT	1MF	20%	50V
C338	1-124-584-00	ELECT	100MF	20%	10V
C339	1-124-791-11	ELECT	1MF	20%	50V
C340	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V
C341	1-126-157-11	ELECT	10MF	20%	16V
C342	1-124-465-00	ELECT	0.47MF	20%	50V
C343	1-124-589-11	ELECT	47MF	20%	16V
C344	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C345	1-124-767-00	ELECT	2.2MF	20%	50V
C346	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C347	1-136-169-00	FILM	0.22MF	5%	50V
C348	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C349	1-126-301-11	ELECT	1MF	20%	50V
C350	1-126-301-11	ELECT	1MF	20%	50V
C351	1-163-002-11	CERAMIC CHIP	270PF	10%	50V
C352	1-164-489-11	CERAMIC CHIP	0.22MF	10%	16V
C353	1-126-163-11	ELECT	4.7MF	20%	50V
C354	1-136-169-00	FILM	0.22MF	5%	50V
C355	1-124-465-00	ELECT	0.47MF	20%	50V
C356	1-163-017-00	CERAMIC CHIP	0.0047MF	10%	50V
C357	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C358	1-124-767-00	ELECT	2.2MF	20%	50V
C360	1-137-491-11	FILM CHIP	0.1MF	5%	25V
C361	1-126-301-11	ELECT	1MF	20%	50V
C362	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C363	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C364	1-126-301-11	ELECT	1MF	20%	50V
C365	1-164-343-11	CERAMIC CHIP	0.056MF	10%	25V
C366	1-124-257-00	ELECT	2.2MF	20%	50V
C367	1-126-157-11	ELECT	10MF	20%	16V
C368	1-124-234-00	ELECT	22MF	20%	16V
C369	1-163-001-11	CERAMIC CHIP	220PF	10%	50V
C370	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C371	1-124-126-00	ELECT	47MF	20%	16V
C372	1-124-589-11	ELECT	47MF	20%	16V
C373	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C378	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C379	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C380	1-163-137-00	CERAMIC CHIP	680PF	5%	50V
C381	1-163-101-00	CERAMIC CHIP	22PF	5%	50V
C382	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C383	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C384	1-163-095-00	CERAMIC CHIP	12PF	5%	50V

<DIODE>

D301	8-719-404-46	DIODE MA110
D302	8-719-404-46	DIODE MA110
D303	8-719-404-46	DIODE MA110
D304	8-719-404-46	DIODE MA110
D305	8-719-404-46	DIODE MA110
D306	8-719-158-15	DIODE RD5.6S-B
D307	8-719-404-46	DIODE MA110
D310	8-719-158-15	DIODE RD5.6S-B
D312	8-719-404-46	DIODE MA110
D313	8-719-404-46	DIODE MA110
D314	8-719-404-46	DIODE MA110
D315	8-719-404-46	DIODE MA110
D316	8-719-404-46	DIODE MA110
D317	8-719-404-46	DIODE MA110
D318	8-719-404-46	DIODE MA110
D319	8-719-404-46	DIODE MA110
D320	8-719-404-46	DIODE MA110
D321	8-719-400-94	DIODE MA3130

<DELAY LINE>

DL302	1-415-817-11	DELAY LINE

<CONNECTOR>

E1-001	*1-573-965-11	PIN, CONNECTOR (PC BOARD) 50P
E1-24	*1-564-523-11	PLUG, CONNECTOR 8P
E1-25	*1-564-521-11	PLUG, CONNECTOR 6P
E1-26	*1-564-522-11	PLUG, CONNECTOR 7P

<IC>

IC301	8-752-058-68	IC CXA1315M
IC302	8-752-057-68	IC CXA1464AS
IC303	8-759-106-02	IC UPC4570G2

<COIL>

L301	1-410-064-11	INDUCTOR	2.7MMH
L307	1-410-944-31	INDUCTOR CHIP	15UH
L308	1-410-946-31	INDUCTOR CHIP	22UH

<TRANSISTOR>

Q301	8-729-925-79	TRANSISTOR IMX3
Q302	8-729-925-79	TRANSISTOR IMX3
Q303	8-729-920-74	TRANSISTOR 2SC2412K-QR

E1

REF.NO.	PART NO.	DESCRIPTION	REMARK
Q304	8-729-907-46	TRANSISTOR IMZ1	
Q305	8-729-925-79	TRANSISTOR IMX3	
Q306	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q307	8-729-903-10	TRANSISTOR FMW1	
Q309	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q310	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q311	8-729-403-27	TRANSISTOR XN4401	
Q312	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q314	8-729-403-27	TRANSISTOR XN4401	
Q315	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q316	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q317	8-729-216-22	TRANSISTOR 2SA1162-G	
Q321	8-729-925-79	TRANSISTOR IMX3	
Q322	8-729-216-22	TRANSISTOR 2SA1162-G	
Q323	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q324	8-729-216-22	TRANSISTOR 2SA1162-G	
Q325	8-729-216-22	TRANSISTOR 2SA1162-G	
Q326	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q327	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q328	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q329	8-729-925-79	TRANSISTOR IMX3	
Q330	8-729-925-79	TRANSISTOR IMX3	
Q333	8-729-925-79	TRANSISTOR IMX3	
Q334	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q335	8-729-907-46	TRANSISTOR IMZ1	
Q340	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q342	8-729-925-79	TRANSISTOR IMX3	
Q344	8-729-216-22	TRANSISTOR 2SA1162-G	

<RESISTOR>

REF.NO.	PART NO.	DESCRIPTION				REMARK
R301	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R302	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R303	1-216-079-00	METAL GLAZE	18K	5%	1/10W	
R304	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R305	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W	
R306	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R307	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R308	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R309	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R310	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R312	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R313	1-216-035-00	METAL GLAZE	270	5%	1/10W	
R314	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R316	1-216-035-00	METAL GLAZE	270	5%	1/10W	
R317	1-216-121-00	METAL GLAZE	1M	5%	1/10W	
R320	1-216-039-00	METAL GLAZE	390	5%	1/10W	
R325	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R326	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R331	1-216-017-00	METAL GLAZE	47	5%	1/10W	
R332	1-216-657-11	METAL CHIP	1.8K	0.50%	1/10W	
R333	1-216-051-00	METAL GLAZE	1.2K	5%	1/10W	
R336	1-216-047-00	METAL GLAZE	820	5%	1/10W	
R338	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R339	1-216-047-00	METAL GLAZE	820	5%	1/10W	
R340	1-216-651-11	METAL CHIP	1K	0.50%	1/10W	
R341	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R343	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R344	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R345	1-216-292-11	METAL GLAZE	8.2M	5%	1/8W	
R346	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R347	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R348	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R349	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R350	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R351	1-216-674-11	METAL CHIP	9.1K	0.50%	1/10W	
R352	1-216-011-00	METAL GLAZE	27	5%	1/10W	
R353	1-216-001-00	METAL GLAZE	10	5%	1/10W	
R354	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R355	1-216-001-00	METAL GLAZE	10	5%	1/10W	
R356	1-216-001-00	METAL GLAZE	10	5%	1/10W	
R357	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R358	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R359	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R360	1-216-119-00	METAL GLAZE	820K	5%	1/10W	
R361	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R362	1-216-079-00	METAL GLAZE	18K	5%	1/10W	
R363	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R364	1-216-045-00	METAL GLAZE	680	5%	1/10W	
R365	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R366	1-216-001-00	METAL GLAZE	10	5%	1/10W	
R367	1-216-045-00	METAL GLAZE	680	5%	1/10W	
R368	1-216-001-00	METAL GLAZE	10	5%	1/10W	
R369	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R370	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R371	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R372	1-216-031-00	METAL GLAZE	180	5%	1/10W	
R373	1-216-671-11	METAL CHIP	6.8K	0.50%	1/10W	
R374	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R375	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R376	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R377	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R378	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R379	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R380	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R381	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R382	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R383	1-216-653-11	METAL CHIP	1.2K	0.50%	1/10W	
R384	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R385	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R386	1-216-687-11	METAL CHIP	33K	0.50%	1/10W	
R387	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R388	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R389	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R390	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R391	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R393	1-216-051-00	METAL GLAZE	1.2K	5%	1/10W	
R394	1-216-109-00	METAL GLAZE	330K	5%	1/10W	
R395	1-216-071-00	METAL GLAZE	8.2K	5%	1/10W	
R396	1-216-105-00	METAL GLAZE	220K	5%	1/10W	
R397	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R398	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R399	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R1301	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1302	1-216-045-00	METAL GLAZE	680	5%	1/10W	
R1303	1-216-085-00	METAL GLAZE	33K	5%	1/10W	
R1304	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R1305	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R1306	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R1307	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1308	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R1309	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R1310	1-216-045-00	METAL GLAZE	680	5%	1/10W	
R1311	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1312	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1313	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R1314	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	

REF.NO.	PART NO.	DESCRIPTION				REMARK
R1315	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1316	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R1317	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1318	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R1319	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R1320	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W	
R1321	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R1322	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R1323	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R1324	1-216-045-00	METAL GLAZE	680	5%	1/10W	
R1325	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R1326	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1327	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R1328	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R1329	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R1330	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R1331	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R1332	1-216-093-00	METAL GLAZE	68K	5%	1/10W	
R1333	1-216-129-00	METAL GLAZE	2.2M	5%	1/10W	
R1334	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R1335	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R1336	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R1337	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R1338	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R1339	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R1340	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1342	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R1343	1-216-105-00	METAL GLAZE	220K	5%	1/10W	
R1344	1-216-091-00	METAL GLAZE	56K	5%	1/10W	
R1345	1-216-101-00	METAL GLAZE	150K	5%	1/10W	
R1346	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1347	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1348	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1349	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1350	1-216-091-00	METAL GLAZE	56K	5%	1/10W	
R1351	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1352	1-216-039-00	METAL GLAZE	390	5%	1/10W	
R1353	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R1354	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R1355	1-216-017-00	METAL GLAZE	47	5%	1/10W	
R1356	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R1357	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R1358	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R1362	1-216-105-00	METAL GLAZE	220K	5%	1/10W	
R1363	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R1364	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R1373	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1374	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R1379	1-216-079-00	METAL GLAZE	18K	5%	1/10W	
R1380	1-216-075-00	METAL GLAZE	12K	5%	1/10W	
R1381	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R1382	1-216-079-00	METAL GLAZE	18K	5%	1/10W	
R1383	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R1384	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1385	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R1386	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R1387	1-216-045-00	METAL GLAZE	680	5%	1/10W	
R1388	1-216-001-00	METAL GLAZE	10	5%	1/10W	
R1389	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R1390	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R1391	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R1392	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R1394	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R1395	1-216-081-00	METAL GLAZE	22K	5%	1/10W	

REF.NO.	PART NO.	DESCRIPTION				REMARK
R1396	1-216-125-00	METAL GLAZE	1.5M	5%	1/10W	
R1399	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R5301	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R5302	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R5303	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R5304	1-216-085-00	METAL GLAZE	33K	5%	1/10W	
R5305	1-216-085-00	METAL GLAZE	33K	5%	1/10W	

<CRYSTAL>

X301	1-567-505-11	OSCILLATOR, CRYSTAL

****

*A-1346-060-A E2 BOARD, COMPLETE
****

<CAPACITOR>

C2302	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V
C2303	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C2310	1-163-105-00	CERAMIC CHIP	33PF	5%	50V
C2313	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
C2314	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C2318	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C2320	1-124-589-11	ELECT	47MF	20%	16V
C2321	1-163-017-00	CERAMIC CHIP	0.0047MF	10%	50V
C2322	1-124-234-00	ELECT	22MF	20%	16V
C2323	1-124-234-00	ELECT	22MF	20%	16V
C2324	1-124-234-00	ELECT	22MF	20%	16V
C2325	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C2326	1-124-589-11	ELECT	47MF	20%	16V
C2327	1-164-505-11	CERAMIC CHIP	2.2MF		16V
C2328	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C2329	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C2331	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C2332	1-124-234-00	ELECT	22MF	20%	16V
C2333	1-124-234-00	ELECT	22MF	20%	16V
C2334	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C2335	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C2336	1-126-163-11	ELECT	4.7MF	20%	16V
C2337	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C2338	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C2340	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C2345	1-164-505-11	CERAMIC CHIP	2.2MF		16V
C2346	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C2347	1-163-367-11	CERAMIC CHIP	39PF	5%	50V
C2349	1-164-505-11	CERAMIC CHIP	2.2MF		16V
C2350	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C2351	1-164-505-11	CERAMIC CHIP	2.2MF		16V
C2352	1-164-505-11	CERAMIC CHIP	2.2MF		16V
C2353	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C2354	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C2357	1-126-301-11	ELECT	1MF	20%	50V
C2360	1-163-109-00	CERAMIC CHIP	47PF	5%	50V

<DIODE>

D2301	8-719-018-27	DIODE MA5091
D2302	8-719-018-27	DIODE MA5091
D2303	8-719-018-27	DIODE MA5091
D2304	8-719-018-27	DIODE MA5091
D2305	8-719-018-27	DIODE MA5091

REF.NO.	PART NO.	DESCRIPTION	REMARK
D2306	8-719-404-46	DIODE MA110	
D2307	8-719-946-98	DIODE FMN1	
D2308	8-719-946-98	DIODE FMN1	
D2309	8-719-404-46	DIODE MA110	
D2312	8-719-404-46	DIODE MA110	
D2313	8-719-404-46	DIODE MA110	
D2314	8-713-300-57	DIODE 1T33	
D2317	8-719-404-46	DIODE MA110	
		<CONNECTOR>	
E2-002	*1-573-965-11	PIN, CONNECTOR (PC BOARD) 50P	
E2-25	*1-564-521-11	PLUG, CONNECTOR 6P	
E2-26	*1-564-522-11	PLUG, CONNECTOR 7P	
E2-46	*1-564-518-11	PLUG, CONNECTOR 3P	
		<IC>	
IC2301	8-759-066-52	IC PCA8510T/012-T	
IC2303	8-759-925-75	IC SN74HC05ANS	
IC2304	8-752-037-15	IC CXA1387S	
IC2306	8-759-011-65	IC MC74HC4053F	
IC2307	8-752-058-68	IC CXA1315M	
		<COIL>	
L2304	1-408-414-00	INDUCTOR 27UH	
		<TRANSISTOR>	
Q2301	8-729-903-10	TRANSISTOR FMW1	
Q2303	8-729-403-27	TRANSISTOR XN4401	
Q2304	8-729-925-79	TRANSISTOR IMX3	
Q2305	8-729-903-10	TRANSISTOR FMW1	
Q2306	8-729-403-27	TRANSISTOR XN4401	
Q2307	8-729-403-27	TRANSISTOR XN4401	
Q2308	8-729-403-27	TRANSISTOR XN4401	
Q2309	8-729-903-10	TRANSISTOR FMW1	
Q2310	8-729-403-27	TRANSISTOR XN4401	
Q2311	8-729-903-10	TRANSISTOR FMW1	
Q2312	8-729-403-27	TRANSISTOR XN4401	
Q2313	8-729-903-10	TRANSISTOR FMW1	
Q2314	8-729-403-27	TRANSISTOR XN4401	
Q2315	8-729-903-10	TRANSISTOR FMW1	
Q2317	8-729-216-22	TRANSISTOR 2SA1162-G	
Q2318	8-729-216-22	TRANSISTOR 2SA1162-G	
Q2319	8-729-216-22	TRANSISTOR 2SA1162-G	
Q2320	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q2321	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q2322	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q2324	8-729-216-22	TRANSISTOR 2SA1162-G	
Q2326	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q2327	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q2330	8-729-903-10	TRANSISTOR FMW1	
Q2337	8-729-925-79	TRANSISTOR IMX3	
Q2338	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q2339	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q2340	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q2341	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q2342	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q2345	8-729-920-74	TRANSISTOR 2SC2412K-QR	

REF.NO.	PART NO.	DESCRIPTION	REMARK
		<RESISTOR>	
R2302	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R2303	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R2304	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R2305	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R2306	1-216-045-00	METAL GLAZE 680 5% 1/10W	
R2307	1-216-045-00	METAL GLAZE 680 5% 1/10W	
R2308	1-216-045-00	METAL GLAZE 680 5% 1/10W	
R2309	1-216-041-00	METAL GLAZE 470 5% 1/10W	
R2310	1-216-055-00	METAL GLAZE 1.8K 5% 1/10W	
R2311	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R2312	1-216-043-00	METAL GLAZE 560 5% 1/10W	
R2313	1-216-055-00	METAL GLAZE 1.8K 5% 1/10W	
R2314	1-216-061-00	METAL GLAZE 3.3K 5% 1/10W	
R2315	1-216-081-00	METAL GLAZE 22K 5% 1/10W	
R2317	1-216-041-00	METAL GLAZE 470 5% 1/10W	
R2318	1-216-055-00	METAL GLAZE 1.8K 5% 1/10W	
R2319	1-216-079-00	METAL GLAZE 18K 5% 1/10W	
R2320	1-216-061-00	METAL GLAZE 3.3K 5% 1/10W	
R2321	1-216-063-00	METAL GLAZE 3.9K 5% 1/10W	
R2322	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R2323	1-216-067-00	METAL GLAZE 5.6K 5% 1/10W	
R2324	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R2325	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R2326	1-216-061-00	METAL GLAZE 3.3K 5% 1/10W	
R2327	1-216-063-00	METAL GLAZE 3.9K 5% 1/10W	
R2328	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R2329	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R2330	1-216-061-00	METAL GLAZE 3.3K 5% 1/10W	
R2331	1-216-063-00	METAL GLAZE 3.9K 5% 1/10W	
R2332	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R2333	1-216-067-00	METAL GLAZE 5.6K 5% 1/10W	
R2334	1-216-295-00	METAL GLAZE 0 5% 1/10W	
R2335	1-216-295-00	METAL GLAZE 0 5% 1/10W	
R2336	1-216-295-00	METAL GLAZE 0 5% 1/10W	
R2337	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R2338	1-216-081-00	METAL GLAZE 22K 5% 1/10W	
R2339	1-216-081-00	METAL GLAZE 22K 5% 1/10W	
R2340	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R2341	1-216-041-00	METAL GLAZE 470 5% 1/10W	
R2342	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R2343	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R2344	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R2345	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R2346	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R2347	1-216-089-00	METAL GLAZE 47K 5% 1/10W	
R2350	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R2351	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R2352	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R2353	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R2354	1-216-178-00	METAL GLAZE 150 5% 1/8W	
R2355	1-216-178-00	METAL GLAZE 150 5% 1/8W	
R2356	1-216-677-11	METAL CHIP 12K 0.50% 1/10W	
R2357	1-216-670-11	METAL CHIP 6.2K 0.50% 1/10W	
R2359	1-216-053-00	METAL GLAZE 1.5K 5% 1/10W	
R2360	1-216-053-00	METAL GLAZE 1.5K 5% 1/10W	
R2361	1-216-053-00	METAL GLAZE 1.5K 5% 1/10W	
R2362	1-216-053-00	METAL GLAZE 1.5K 5% 1/10W	
R2363	1-216-041-00	METAL GLAZE 470 5% 1/10W	
R2364	1-216-053-00	METAL GLAZE 1.5K 5% 1/10W	
R2365	1-216-053-00	METAL GLAZE 1.5K 5% 1/10W	
R2366	1-216-081-00	METAL GLAZE 22K 5% 1/10W	
R2367	1-216-043-00	METAL GLAZE 560 5% 1/10W	
R2368	1-216-081-00	METAL GLAZE 22K 5% 1/10W	
R2371	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W	

REF.NO.	PART NO.	DESCRIPTION				REMARK
R2374	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W	
R2375	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R2376	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R2377	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R2378	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R2379	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R2380	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R2381	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R2382	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R2384	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R2385	1-216-075-00	METAL GLAZE	12K	5%	1/10W	
R2386	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R2387	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R2388	1-216-017-00	METAL GLAZE	47	5%	1/10W	
R2390	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R2393	1-216-017-00	METAL GLAZE	47	5%	1/10W	
R2394	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R2395	1-216-001-00	METAL GLAZE	10	5%	1/10W	
R2397	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R2399	1-216-001-00	METAL GLAZE	10	5%	1/10W	
R3301	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R3302	1-216-001-00	METAL GLAZE	10	5%	1/10W	
R3303	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W	
R3304	1-216-091-00	METAL GLAZE	56K	5%	1/10W	
R3306	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R3307	1-216-085-00	METAL GLAZE	33K	5%	1/10W	
R3308	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R3309	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R3310	1-216-001-00	METAL GLAZE	10	5%	1/10W	
R3311	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R3312	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R3313	1-216-083-00	METAL GLAZE	27K	5%	1/10W	
R3314	1-216-689-11	METAL GLAZE	39K	5%	1/10W	
R3315	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R3316	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R3318	1-216-091-00	METAL GLAZE	56K	5%	1/10W	
R3319	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R3320	1-216-017-00	METAL GLAZE	47	5%	1/10W	
R3321	1-216-079-00	METAL GLAZE	18K	5%	1/10W	
R3323	1-216-091-00	METAL GLAZE	56K	5%	1/10W	
R3324	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R3325	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R3328	1-216-001-00	METAL GLAZE	10	5%	1/10W	
R3330	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R3331	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R3332	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R3339	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R3340	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R3341	1-216-677-11	METAL CHIP	12K	0.50%	1/10W	
R3342	1-216-670-11	METAL CHIP	6.2K	0.50%	1/10W	
R3343	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R3344	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R3349	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R3350	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R3351	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R3353	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W	
R3354	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W	
R3360	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R3361	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R3362	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R3367	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R3368	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R3369	1-216-001-00	METAL GLAZE	10	5%	1/10W	
R3370	1-216-001-00	METAL GLAZE	10	5%	1/10W	

REF.NO.	PART NO.	DESCRIPTION				REMARK
R3371	1-216-001-00	METAL GLAZE	10	5%	1/10W	
R3374	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W	
R3387	1-216-178-00	METAL GLAZE	150	5%	1/8W	
R3388	1-216-178-00	METAL GLAZE	150	5%	1/8W	
R3392	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R3401	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R7312	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R7313	1-216-047-00	METAL GLAZE	820	5%	1/10W	
R7314	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	

<CRYSTAL>

X2301	1-577-071-11	VIBRATOR, CERAMIC

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*A-1394-366-A Y2 BOARD, COMPLETE
****

<CAPACITOR>

C401	1-124-234-00	ELECT	22MF	20%	16V
C424	1-126-301-11	ELECT	1MF	20%	50V
C425	1-126-301-11	ELECT	1MF	20%	50V
C426	1-126-301-11	ELECT	1MF	20%	50V
C427	1-124-465-00	ELECT	0.47MF	20%	50V
C428	1-126-163-11	ELECT	4.7MF	20%	50V
C429	1-124-478-11	ELECT	100MF	20%	25V
C430	1-124-261-00	ELECT	10MF	20%	50V
C431	1-126-301-11	ELECT	1MF	20%	50V
C432	1-126-301-11	ELECT	1MF	20%	50V
C433	1-131-347-00	TANTALUM	1MF	20%	16V
C434	1-126-301-11	ELECT	1MF	20%	50V
C435	1-130-309-00	FILM	0.033MF	5%	100V
C436	1-126-301-11	ELECT	1MF	20%	50V
C437	1-130-487-00	MYLAR	0.022MF	5%	50V
C438	1-126-301-11	ELECT	1MF	20%	50V
C439	1-124-034-51	ELECT	33MF	20%	16V
C440	1-126-301-11	ELECT	1MF	20%	50V
C441	1-126-301-11	ELECT	1MF	20%	50V
C442	1-124-261-00	ELECT	10MF	20%	50V
C443	1-124-589-11	ELECT	47MF	20%	16V
C444	1-126-163-11	ELECT	4.7MF	20%	50V
C445	1-126-163-11	ELECT	4.7MF	20%	50V
C446	1-124-234-00	ELECT	22MF	20%	16V
C447	1-126-301-11	ELECT	1MF	20%	50V
C448	1-136-170-00	FILM	0.27MF	5%	50V
C449	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V
C450	1-130-475-00	MYLAR	0.0022MF	5%	50V
C451	1-124-261-00	ELECT	10MF	20%	50V
C452	1-124-261-00	ELECT	10MF	20%	50V
C453	1-130-475-00	MYLAR	0.0022MF	5%	50V
C454	1-131-368-00	TANTALUM	3.3MF	10%	16V
C455	1-131-347-00	TANTALUM	1MF	20%	16V
C456	1-136-171-00	FILM	0.33MF	5%	50V
C457	1-136-175-00	FILM	0.68MF	5%	50V
C458	1-126-101-11	ELECT	100MF	20%	16V
C459	1-126-101-11	ELECT	100MF	20%	16V
C460	1-126-101-11	ELECT	100MF	20%	16V
C461	1-124-499-11	ELECT	1MF	20%	50V
C462	1-124-499-11	ELECT	1MF	20%	50V
C465	1-130-485-00	MYLAR	0.015MF	5%	50V
C466	1-130-485-00	MYLAR	0.015MF	5%	50V
C467	1-136-169-00	FILM	0.22MF	5%	50V

Y2

REF.NO.	PART NO.	DESCRIPTION			REMARK
C468	1-136-169-00	FILM	0.22MF	5%	50V
C469	1-126-157-11	ELECT	10MF	20%	16V
C470	1-126-157-11	ELECT	10MF	20%	16V
C471	1-124-589-11	ELECT	47MF	20%	16V
C472	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C473	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C474	1-124-234-00	ELECT	22MF	20%	16V
C475	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C476	1-124-234-00	ELECT	22MF	20%	16V
C477	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C478	1-124-478-11	ELECT	100MF	20%	25V
C479	1-126-163-11	ELECT	4.7MF	20%	50V
C480	1-124-768-11	ELECT	4.7MF	20%	50V
C481	1-124-768-11	ELECT	4.7MF	20%	50V
C482	1-126-163-11	ELECT	4.7MF	20%	50V
C483	1-163-113-00	CERAMIC CHIP	68PF	5%	50V
C484	1-163-113-00	CERAMIC CHIP	68PF	5%	50V
C485	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C487	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C488	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V

<DIODE>

REF.NO.	PART NO.	DESCRIPTION
D405	8-719-107-13	DIODE RD18M-B1
D406	8-719-107-13	DIODE RD18M-B1
D407	8-719-107-13	DIODE RD18M-B1
D408	8-719-105-83	DIODE RD5.1M-B3
D409	8-719-981-50	DIODE RB-100A
D410	8-719-981-50	DIODE RB-100A
D413	8-719-158-19	DIODE RD6.2S-B
D414	8-719-158-55	DIODE RD15S-B
D415	8-719-158-55	DIODE RD15S-B

<IC>

REF.NO.	PART NO.	DESCRIPTION
IC403	8-759-996-43	IC RC4558PS
IC404	8-759-067-24	IC 24C04AI/P
IC406	8-752-037-24	IC CXA1264AS
IC407	8-759-245-75	IC TA8184P
IC408	8-752-057-18	IC CXA1315P

<TRANSISTOR>

REF.NO.	PART NO.	DESCRIPTION
Q404	8-729-216-22	TRANSISTOR 2SA1162-G
Q405	8-729-216-22	TRANSISTOR 2SA1162-G
Q409	8-729-920-74	TRANSISTOR 2SC2412K-QR
Q410	8-729-920-74	TRANSISTOR 2SC2412K-QR

<RESISTOR>

REF.NO.	PART NO.	DESCRIPTION			REMARK
R447	1-216-033-00	METAL GLAZE	220	5%	1/10W
R453	1-216-033-00	METAL GLAZE	220	5%	1/10W
R464	1-216-081-00	METAL GLAZE	22K	5%	1/10W
R465	1-216-081-00	METAL GLAZE	22K	5%	1/10W
R466	1-216-025-00	METAL GLAZE	100	5%	1/10W
R467	1-216-033-00	METAL GLAZE	220	5%	1/10W
R468	1-216-033-00	METAL GLAZE	220	5%	1/10W
R469	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W
R470	1-216-033-00	METAL GLAZE	220	5%	1/10W
R471	1-216-033-00	METAL GLAZE	220	5%	1/10W
R472	1-216-686-11	METAL CHIP	30K	0.50%	1/10W
R473	1-216-295-00	METAL GLAZE	0	5%	1/10W
R474	1-216-295-00	METAL GLAZE	0	5%	1/10W
R475	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W
R476	1-216-673-11	METAL CHIP	8.2K	0.50%	1/10W
R477	1-216-676-11	METAL CHIP	11K	0.50%	1/10W
R478	1-216-089-00	METAL GLAZE	47K	5%	1/10W
R479	1-216-673-11	METAL CHIP	8.2K	0.50%	1/10W
R480	1-216-676-11	METAL CHIP	11K	0.50%	1/10W
R481	1-216-089-00	METAL GLAZE	47K	5%	1/10W
R482	1-216-089-00	METAL GLAZE	47K	5%	1/10W
R483	1-216-089-00	METAL GLAZE	47K	5%	1/10W
R485	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R486	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R488	1-216-295-00	METAL GLAZE	0	5%	1/10W
R494	1-216-025-00	METAL GLAZE	100	5%	1/10W
R495	1-216-025-00	METAL GLAZE	100	5%	1/10W
R496	1-216-025-00	METAL GLAZE	100	5%	1/10W
R497	1-216-033-00	METAL GLAZE	220	5%	1/10W
R498	1-216-025-00	METAL GLAZE	100	5%	1/10W
R499	1-216-025-00	METAL GLAZE	100	5%	1/10W
R500	1-216-081-00	METAL GLAZE	22K	5%	1/10W
R501	1-216-669-11	METAL CHIP	5.6K	0.50%	1/10W
R502	1-216-033-00	METAL GLAZE	220	5%	1/10W
R503	1-216-663-11	METAL CHIP	3.3K	0.50%	1/10W
R504	1-216-669-11	METAL CHIP	5.6K	0.50%	1/10W
R507	1-216-295-00	METAL GLAZE	0	5%	1/10W
R509	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R510	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W
R512	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R513	1-216-663-11	METAL CHIP	3.3K	0.50%	1/10W
R515	1-216-295-00	METAL GLAZE	0	5%	1/10W
R517	1-216-025-00	METAL GLAZE	100	5%	1/10W
R518	1-216-089-00	METAL GLAZE	47K	5%	1/10W
R519	1-216-295-00	METAL GLAZE	0	5%	1/10W
R521	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W
R522	1-216-033-00	METAL GLAZE	220	5%	1/10W
R523	1-216-033-00	METAL GLAZE	220	5%	1/10W
R524	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R525	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R526	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R527	1-218-753-11	METAL CHIP	110K	0.50%	1/10W
R528	1-216-689-11	METAL CHIP	39K	0.50%	1/10W
R529	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R531	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R532	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R533	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R535	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R536	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R537	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R538	1-218-753-11	METAL CHIP	110K	0.50%	1/10W
R539	1-216-689-11	METAL CHIP	39K	0.50%	1/10W
R540	1-216-025-00	METAL GLAZE	100	5%	1/10W
R541	1-216-025-00	METAL GLAZE	100	5%	1/10W
R542	1-216-025-00	METAL GLAZE	100	5%	1/10W
R543	1-216-025-00	METAL GLAZE	100	5%	1/10W
R546	1-216-682-11	METAL CHIP	20K	0.50%	1/10W
R547	1-216-682-11	METAL CHIP	20K	0.50%	1/10W

<CONNECTOR>

Y2-401*1-573-966-11 PIN, CONNECTOR (PC BOARD) 36P

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REF.NO.	PART NO.	DESCRIPTION	REMARK
	*A-1394-367-A	X3 BOARD, COMPLETE ******************	
		<CAPACITOR>	
C2501	1-124-589-11	ELECT 47MF 20% 16V	
C2502	1-124-589-11	ELECT 47MF 20% 16V	
C2505	1-126-344-91	ELECT 22MF 20% 6.3V	
C2506	1-126-177-11	ELECT 100MF 20% 10V	
C2507	1-126-163-11	ELECT 4.7MF 20% 16V	
C2508	1-163-109-00	CERAMIC CHIP 47PF 5% 50V	
C2509	1-126-163-11	ELECT 4.7MF 20% 50V	
C2512	1-163-031-11	CERAMIC CHIP 0.01MF 50V	
C2513	1-163-109-00	CERAMIC CHIP 47PF 5% 50V	
C2514	1-126-163-11	ELECT 4.7MF 20% 16V	
C2516	1-126-163-11	ELECT 4.7MF 20% 50V	
C2517	1-163-031-11	CERAMIC CHIP 0.01MF 50V	
C2518	1-163-031-11	CERAMIC CHIP 0.01MF 50V	
C2519	1-163-031-11	CERAMIC CHIP 0.01MF 50V	
C2520	1-163-031-11	CERAMIC CHIP 0.01MF 50V	
C2521	1-163-088-00	CERAMIC CHIP 5PF 0.25PF 50V	
C2522	1-163-009-11	CERAMIC CHIP 0.001MF 10% 50V	
C2523	1-163-100-00	CERAMIC CHIP 20PF 5% 50V	
C2524	1-163-031-11	CERAMIC CHIP 0.01MF 50V	
C2525	1-163-031-11	CERAMIC CHIP 0.01MF 50V	
C2526	1-163-031-11	CERAMIC CHIP 0.01MF 50V	
C2527	1-163-031-11	CERAMIC CHIP 0.01MF 50V	
C2528	1-163-031-11	CERAMIC CHIP 0.01MF 50V	
C2529	1-163-031-11	CERAMIC CHIP 0.01MF 50V	
C2532	1-126-163-11	ELECT 4.7MF 20% 16V	
C2536	1-124-589-11	ELECT 47MF 20% 16V	
C2537	1-163-031-11	CERAMIC CHIP 0.01MF 50V	
C2540	1-126-163-11	ELECT 4.7MF 20% 16V	
C2544	1-163-031-11	CERAMIC CHIP 0.01MF 50V	
C2545	1-163-031-11	CERAMIC CHIP 0.01MF 50V	
C2546	1-163-031-11	CERAMIC CHIP 0.01MF 50V	
C2547	1-163-031-11	CERAMIC CHIP 0.01MF 50V	
C2548	1-163-031-11	CERAMIC CHIP 0.01MF 50V	
C2549	1-163-031-11	CERAMIC CHIP 0.01MF 50V	
C2550	1-163-031-11	CERAMIC CHIP 0.01MF 50V	
C2551	1-163-031-11	CERAMIC CHIP 0.01MF 50V	
C2552	1-163-031-11	CERAMIC CHIP 0.01MF 50V	
C2553	1-126-177-11	ELECT 100MF 20% 10V	
C2554	1-163-033-00	CERAMIC CHIP 0.022MF 50V	
C2557	1-163-031-11	CERAMIC CHIP 0.01MF 50V	
C2558	1-163-031-11	CERAMIC CHIP 0.01MF 50V	
C2560	1-126-163-11	ELECT 4.7MF 20% 16V	
C2561	1-163-263-11	CERAMIC CHIP 330PF 5% 50V	
C2562	1-163-018-00	CERAMIC CHIP 0.0056MF 10% 50V	
C2563	1-164-695-11	CERAMIC CHIP 0.0022MF 5% 50V	
C2566	1-126-163-11	ELECT 4.7MF 20% 16V	
C2569	1-164-695-11	CERAMIC CHIP 0.0022MF 5% 50V	
C2570	1-163-018-00	CERAMIC CHIP 0.0056MF 10% 50V	
C2571	1-163-263-11	CERAMIC CHIP 330PF 5% 50V	
C2572	1-164-695-11	CERAMIC CHIP 0.0022MF 5% 50V	
C2573	1-163-263-11	CERAMIC CHIP 330PF 5% 50V	
C2574	1-163-018-00	CERAMIC CHIP 0.0056MF 10% 50V	
C2575	1-163-031-11	CERAMIC CHIP 0.01MF 50V	
C2577	1-124-465-00	ELECT 0.47MF 20% 50V	
C2578	1-124-465-00	ELECT 0.47MF 20% 50V	
C2579	1-163-018-00	CERAMIC CHIP 0.0056MF 10% 50V	
C2580	1-163-263-11	CERAMIC CHIP 330PF 5% 50V	
C2581	1-164-695-11	CERAMIC CHIP 0.0022MF 5% 50V	
C2582	1-124-234-00	ELECT 22MF 20% 16V	
C2583	1-124-589-11	ELECT 47MF 20% 16V	
C2590	1-135-179-21	TANTAL. CHIP 2.2MF 20% 16V	
C2591	1-135-179-21	TANTAL. CHIP 2.2MF 20% 16V	
C2592	1-135-179-21	TANTAL. CHIP 2.2MF 20% 16V	

REF.NO.	PART NO.	DESCRIPTION	REMARK
C2593	1-135-179-21	TANTAL. CHIP 2.2MF 20% 16V	
		<DIODE>	
D2501	8-719-404-46	DIODE MA110	
		<FERRITE BEAD>	
FB2502	1-410-397-21	FERRITE BEAD INDUCTOR	
FB2504	1-410-397-21	FERRITE BEAD INDUCTOR	
		<FILTER>	
FL2501	1-236-164-11	ENCAPSULATED COMPONENT	
FL2503	1-236-164-11	ENCAPSULATED COMPONENT	
FL2505	1-236-164-11	ENCAPSULATED COMPONENT	
FL2506	1-236-129-11	ENCAPSULATED COMPONENT	
FL2507	1-236-129-11	ENCAPSULATED COMPONENT	
FL2508	1-236-129-11	ENCAPSULATED COMPONENT	
FL2509	1-236-129-11	ENCAPSULATED COMPONENT	
		<IC>	
IC2501	8-759-052-52	IC L78M05T-FA	
IC2502	8-759-031-31	IC MC33174M	
IC2503	8-752-344-45	IC CXD2555Q	
IC2504	8-752-343-18	IC CXD2704Q	
IC2506	8-759-031-31	IC MC33174M	
IC2507	8-752-344-45	IC CXD2555Q	
IC2508	8-752-835-59	IC CXP5068H-081Q	
IC2509	8-759-042-02	IC S-80743AL-A7-S	
IC2510	8-752-332-80	IC CXD1160AQ	
IC2511	8-759-932-21	IC MB81256-12PSZ	
IC2512	8-759-069-14	IC M51132L	
IC2513	8-759-100-96	IC UPC4558G2	
		<JACK>	
J2501	*1-573-966-11	PIN, CONNECTOR (PC BOARD) 36P	
		<COIL>	
L2501	1-410-204-31	INDUCTOR CHIP 10UH	
L2504	1-410-204-31	INDUCTOR CHIP 10UH	
L2505	1-410-196-11	INDUCTOR CHIP 2.2UH	
L2510	1-410-204-31	INDUCTOR CHIP 10UH	
L2511	1-410-204-31	INDUCTOR CHIP 10UH	
L2512	1-410-204-31	INDUCTOR CHIP 10UH	
L2513	1-410-204-31	INDUCTOR CHIP 10UH	
L2514	1-410-204-31	INDUCTOR CHIP 10UH	
L2515	1-410-204-31	INDUCTOR CHIP 10UH	
L2516	1-410-204-31	INDUCTOR CHIP 10UH	
L2517	1-410-204-31	INDUCTOR CHIP 10UH	
		<TRANSISTOR>	
Q2501	8-729-920-74	TRANSISTOR 2SC2412K-QR	
		<RESISTOR>	
R2501	1-216-097-00	METAL GLAZE 100K 5% 1/10W	
R2502	1-216-699-11	METAL CHIP 100K 0.50% 1/10W	
R2505	1-216-667-11	METAL CHIP 4.7K 0.50% 1/10W	

REF.NO.	PART NO.	DESCRIPTION				REMARK
R2506	1-216-667-11	METAL CHIP	4.7K	0.50%	1/10W	
R2507	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R2508	1-216-699-11	METAL CHIP	100K	0.50%	1/10W	
R2509	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R2510	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R2511	1-216-667-11	METAL CHIP	4.7K	0.50%	1/10W	
R2512	1-216-667-11	METAL CHIP	4.7K	0.50%	1/10W	
R2513	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R2518	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R2519	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R2520	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R2521	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R2522	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R2531	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R2532	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R2533	1-216-681-11	METAL CHIP	18K	0.50%	1/10W	
R2534	1-216-675-11	METAL CHIP	10K	0.50%	1/10W	
R2535	1-216-677-11	METAL CHIP	12K	0.50%	1/10W	
R2536	1-216-687-11	METAL CHIP	33K	0.50%	1/10W	
R2537	1-216-685-11	METAL CHIP	27K	0.50%	1/10W	
R2538	1-216-681-11	METAL CHIP	18K	0.50%	1/10W	
R2539	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R2540	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R2541	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R2542	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R2543	1-216-681-11	METAL CHIP	18K	0.50%	1/10W	
R2544	1-216-675-11	METAL CHIP	10K	0.50%	1/10W	
R2545	1-216-687-11	METAL CHIP	33K	0.50%	1/10W	
R2546	1-216-677-11	METAL CHIP	12K	0.50%	1/10W	
R2547	1-216-685-11	METAL CHIP	27K	0.50%	1/10W	
R2548	1-216-681-11	METAL CHIP	18K	0.50%	1/10W	
R2549	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R2550	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R2551	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R2552	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R2557	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R2559	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R2560	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R2561	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R2562	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R2563	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R2564	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R2565	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R2566	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R2567	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R2568	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R2569	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R2570	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R2571	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R2572	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R2573	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R2574	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R2575	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R2576	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R2577	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R2578	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R2579	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R2583	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R2584	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R2585	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R2590	1-216-631-11	METAL CHIP	150	0.50%	1/10W	
R2591	1-216-631-11	METAL CHIP	150	0.50%	1/10W	
R2592	1-216-665-11	METAL CHIP	3.9K	0.50%	1/10W	
R2593	1-216-665-11	METAL CHIP	3.9K	0.50%	1/10W	
R2594	1-216-665-11	METAL CHIP	3.9K	0.50%	1/10W	
R2595	1-216-665-11	METAL CHIP	3.9K	0.50%	1/10W	
R2596	1-216-665-11	METAL CHIP	3.9K	0.50%	1/10W	
R2597	1-216-665-11	METAL CHIP	3.9K	0.50%	1/10W	
R2598	1-216-665-11	METAL CHIP	3.9K	0.50%	1/10W	
R2599	1-216-665-11	METAL CHIP	3.9K	0.50%	1/10W	
R2600	1-216-665-11	METAL CHIP	3.9K	0.50%	1/10W	
R2601	1-216-665-11	METAL CHIP	3.9K	0.50%	1/10W	
R2602	1-216-665-11	METAL CHIP	3.9K	0.50%	1/10W	
R2603	1-216-665-11	METAL CHIP	3.9K	0.50%	1/10W	
R2605	1-216-679-11	METAL CHIP	15K	0.50%	1/10W	
R2606	1-216-679-11	METAL CHIP	15K	0.50%	1/10W	
R2607	1-216-679-11	METAL CHIP	15K	0.50%	1/10W	
R2608	1-216-679-11	METAL CHIP	15K	0.50%	1/10W	
R2609	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R2610	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R2611	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R2612	1-216-025-00	METAL GLAZE	100	5%	1/10W	

<CRYSTAL>

REF.NO.	PART NO.	DESCRIPTION
X2501	1-579-692-31	VIBRATOR, CRYSTAL

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REF.NO.	PART NO.	DESCRIPTION
	*A-1316-134-A	G BOARD, COMPLETE ****************
	1-533-223-11	CLIP, FUSE
	3-701-754-00	PLATE, INSULATING
	*4-341-751-01	EYELET (EY3~EY14,EY19~EY27,EY32~EY54, EY57,EY60~EY84,EY88~EY106)
	*4-341-752-01	EYELET (EY1,EY2,EY28~EY31,EY85~EY87)
	4-382-854-11	SCREW (M3X10), P, SW (+)

<CAPACITOR>

REF.NO.	PART NO.	DESCRIPTION				REMARK
C601	1-165-137-91	CERAMIC	4700PF	10%	500V	
C602	1-130-317-00	FILM	0.068MF	5%	100V	
C603	1-124-634-11	ELECT	1MF	20%	250V	
C605	1-164-143-11	CERAMIC	0.001MF	10%	1KV	
C606	1-124-563-11	ELECT	2200MF	20%	25V	
C607	1-124-563-11	ELECT	2200MF	20%	25V	
C608	1-128-484-11	ELECT	100MF	20%	200V	
C609	1-137-141-11	FILM	0.082MF	3%	600V	
C610	1-124-046-00	ELECT	10MF		160V	
C611	1-124-798-11	ELECT	1MF	20%	160V	
C612	1-124-962-11	ELECT	2200MF	20%	25V	
C613	1-124-557-11	ELECT	1000MF	20%	25V	
C614	1-126-326-51	ELECT	10MF	20%	200V	
C615	1-124-798-11	ELECT	1MF	20%	160V	
C616	1-124-557-11	ELECT	1000MF	20%	25V	
C617	1-164-143-11	CERAMIC	0.001MF	10%	1KV	
C618	1-136-853-11	FILM	0.56MF	5%	200V	
C619	1-164-735-11	CAP, CERAMIC	1500PF			
C620	1-136-721-21	FILM	1.5MF	10%	400V	
C621	1-164-143-11	CERAMIC	0.001MF	10%	1KV	
C622	1-136-853-11	FILM	0.56MF	5%	200V	
C623	1-137-087-11	FILM	0.068MF	3%	0	
C624	1-126-771-21	ELECT	100MF	20%	160V	
C625	1-126-183-11	ELECT	1000MF	20%	16V	
C626	1-126-373-11	ELECT	470MF	20%	10V	
C628	1-165-137-91	CERAMIC	4700PF	10%	500V	
C629	1-124-607-11	ELECT	2200MF	20%	50V	

Les composants identifiés par une trame et par une marque ⚠ sont d'une importance critique pour la sécurité. Ne les remplacer que par des pièces de numéro spécifié.

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

REF.NO.	PART NO.	DESCRIPTION			REMARK
C631	1-126-803-11	ELECT	47MF	20%	50V
C632	1-124-903-11	ELECT	1MF	20%	50V
C633	1-130-483-00	MYLAR	0.01MF	5%	50V
C634	1-126-803-11	ELECT	47MF	20%	16V
C636	1-129-726-00	FILM	0.1MF	10%	630V
C637 ⚠	1-136-311-51	FILM	0.47MF	20%	125V
C638 ⚠	1-161-743-12	CERAMIC	0.0047MF		400V
C639 ⚠	1-125-692-11	ELECT(BLOCK)	820MF	20%	200V
C640 ⚠	1-136-311-51	FILM	0.47MF	20%	125V
C641	1-126-101-11	ELECT	100MF	20%	16V
C642 ⚠	1-161-743-12	CERAMIC	0.0047MF		400V
C643	1-124-935-11	ELECT	470MF	20%	100V
C644	1-126-376-11	ELECT	470MF	20%	25V
C645	1-124-907-11	ELECT	10MF	20%	50V
C646	1-124-907-11	ELECT	10MF	20%	50V
C647 ⚠	1-164-486-51	CERAMIC	0.0033MF	20%	400V
C648 ⚠	1-125-692-11	ELECT(BLOCK)	820MF	20%	200V
C649 ⚠	1-164-486-51	CERAMIC	0.0033MF	20%	400V
C650 ⚠	1-161-743-12	CERAMIC	0.0047MF		400V
C660	1-102-074-00	CERAMIC	0.001MF	10%	50V
C661	1-101-006-00	CERAMIC	0.047MF		50V
C662	1-124-477-11	ELECT	47MF	20%	16V
C663	1-126-105-11	ELECT	1000MF	20%	35V
C664	1-126-160-11	ELECT	1MF	20%	50V
C670	1-102-074-00	CERAMIC	0.001MF	10%	50V

<DIODE>

REF.NO.	PART NO.	DESCRIPTION	REMARK
D601	8-719-979-58	DIODE EGP10D	
D602	8-719-979-58	DIODE EGP10D	
D603	8-719-500-67	DIODE D5KC40H	
D604	8-719-510-09	DIODE D10SC6M	
D605	8-719-988-31	DIODE D10SC6MR	
D606	8-719-109-85	DIODE RD5.1ES-B2	
D607	8-719-025-81	DIODE S3V10SB	
D608	8-719-109-85	DIODE RD5.1ES-B2	
D609	8-719-109-84	DIODE RD5.1ES-B1	
D610	8-719-979-58	DIODE EGP10D	
D611	8-719-979-58	DIODE EGP10D	
D612	8-719-979-58	DIODE EGP10D	
D613	8-719-303-57	DIODE RU2AM	
D614	8-719-979-58	DIODE EGP10D	
D615	8-719-975-76	DIODE SB-140	
D616	8-719-025-81	DIODE S3V10SB	
D617	8-719-110-02	DIODE RD7.5ES-B1	
D618	8-719-911-19	DIODE 1SS119	
D619	8-719-975-76	DIODE SB-140	
D620 ⚠	8-719-988-31	DIODE D10SC6MR	
D621	8-719-911-55	DIODE U05G	
D622	8-719-911-55	DIODE U05G	
D623	8-719-110-63	DIODE RD24ES-B3	
D624	8-719-109-89	DIODE RD5.6ES-B2	
D625	8-719-911-19	DIODE 1SS119	
D626	8-719-911-55	DIODE U05G	
D627	8-719-911-19	DIODE 1SS119	
D628	8-719-110-49	DIODE RD18ES-B2	
D629	8-719-911-19	DIODE 1SS119	
D630	8-719-913-64	THYRISTOR CSM2B4A10	
D631	8-719-911-19	DIODE 1SS119	
D632	8-719-500-67	DIODE D5KC40H	
D633 ⚠	8-719-505-60	DIODE S5VB60	
D634	8-719-911-19	DIODE 1SS119	
D636	8-719-109-85	DIODE RD5.1ES-B2	
D638	8-719-911-19	DIODE 1SS119	
D639	8-719-981-00	DIODE ERB81-004	
D640 ⚠	8-719-510-09	DIODE D10SC6M	
D645	8-719-200-02	DIODE 10E2	
D650	8-719-160-81	DIODE RD27F-B2	

<FUSE>

REF.NO.	PART NO.	DESCRIPTION	REMARK
F601 ⚠	1-532-748-11	FUSE, GLASS TUBE 6.3A/125V	

<FERRITE BEAD>

REF.NO.	PART NO.	DESCRIPTION	REMARK
FB601	1-410-396-41	FERRITE BEAD INDUCTOR	
FB602	1-410-397-21	FERRITE BEAD INDUCTOR	
FB604	1-410-396-41	FERRITE BEAD INDUCTOR	
FB606	1-410-397-21	FERRITE BEAD INDUCTOR	
FB607	1-410-397-21	FERRITE BEAD INDUCTOR	
FB608	1-410-396-41	FERRITE BEAD INDUCTOR	
FB612	1-410-397-21	FERRITE BEAD INDUCTOR	
FB622	1-410-397-21	FERRITE BEAD INDUCTOR	
FB623	1-410-397-21	FERRITE BEAD INDUCTOR	
FB630	1-410-396-41	FERRITE BEAD INDUCTOR	
FB631	1-410-396-41	FERRITE BEAD INDUCTOR	

<CONNECTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
G1	*1-508-786-00	PIN, CONNECTOR (5MM PITCH) 2P	
G2	*1-564-512-11	PLUG, CONNECTOR 9P	
G3	*1-564-507-11	PLUG, CONNECTOR 4P	
G4	*1-564-511-11	PLUG, CONNECTOR 8P	
G5	*1-564-508-11	PLUG, CONNECTOR 5P	
G6	*1-564-507-11	PLUG, CONNECTOR 4P	
G7	*1-564-507-11	PLUG, CONNECTOR 4P	
G8	*1-580-843-11	PIN, CONNECTOR (POWER)	
G9	*1-508-765-00	PIN, CONNECTOR (5MM PITCH) 3P	
G10	*1-508-786-00	PIN, CONNECTOR (5MM PITCH) 2P	
G11	*1-564-511-11	PLUG, CONNECTOR 8P	
G12	*1-564-505-11	PLUG, CONNECTOR 2P	

<IC>

REF.NO.	PART NO.	DESCRIPTION	REMARK
IC601 ⚠	8-749-921-89	IC SE115N	
IC602	8-759-143-02	IC UPC7812HF	
IC606	8-759-506-79	IC IR3M02	

<COIL>

REF.NO.	PART NO.	DESCRIPTION		REMARK
L602	1-459-862-11	COIL, CHOKE 90UH		
L604	1-408-404-00	INDUCTOR	3.9UH	
L605	1-412-526-11	INDUCTOR	12UH	
L607	1-408-404-00	INDUCTOR	3.9UH	
L610	1-424-602-11	COIL, CHOKE 800UH		
L611	1-412-546-41	INDUCTOR	560UH	
L612	1-412-540-41	INDUCTOR	180UH	
L613	1-412-522-41	INDUCTOR	5.6UH	

<TRANSISTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
Q601	8-729-313-82	TRANSISTOR 2SD1138-C	
Q602	8-729-906-39	TRANSISTOR 2SC3271-P	
Q603	8-729-011-15	TRANSISTOR 2SC4582NP	
Q604	8-729-119-80	TRANSISTOR 2SC2688-LK	
Q605	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q606	8-729-255-12	TRANSISTOR 2SC2551-O	
Q607	8-729-119-78	TRANSISTOR 2SC2785-HFE	

Les composants identifies par une trame et une marque ⚠ sont critiques pour la securite. Ne les remplacer que par une piece portant le numero specifie.

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

REF.NO.	PART NO.	DESCRIPTION				REMARK
Q608	8-729-906-39	TRANSISTOR 2SC3271-P				
Q609	8-729-119-76	TRANSISTOR 2SA1175-HFE				
Q610	8-729-820-82	TRANSISTOR 2SA1208-S				
Q611	8-729-820-82	TRANSISTOR 2SA1208-S				
Q612	8-729-386-12	TRANSISTOR 2SB861-C				
Q613	8-729-209-15	TRANSISTOR 2SD2012				
Q614	8-729-011-15	TRANSISTOR 2SC4582NP				
Q615	8-729-820-82	TRANSISTOR 2SA1208-S				
Q616	8-729-208-39	TRANSISTOR 2SA1306A-Y				
Q618	8-729-119-76	TRANSISTOR 2SA1175-HFE				
Q620	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q621	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q623	8-729-119-76	TRANSISTOR 2SA1175-HFE				
Q624	8-729-103-80	TRANSISTOR 2SA1261-K				
Q629	8-729-378-84	TRANSISTOR 2SD788-5				
Q630	8-729-255-12	TRANSISTOR 2SC2551-0				

<RESISTOR>

REF.NO.	PART NO.	DESCRIPTION				REMARK
R602	1-249-424-11	CARBON	3.9K	5%	1/4W	F
R603	1-214-779-00	METAL	120K	1%	1/4W	
R604	1-202-933-61	FUSIBLE	0.1	10%	1/2W	F
R605	1-249-428-11	CARBON	8.2K	5%	1/4W	
R606	1-260-126-91	CARBON	180K	5%	1/2W	
R607	1-249-418-11	CARBON	1.2K	5%	1/4W	F
R608	1-215-436-00	METAL	4.3K	1%	1/4W	
R609	1-249-438-11	CARBON	56K	5%	1/4W	F
R610	1-249-418-11	CARBON	1.2K	5%	1/4W	
R611	1-249-418-11	CARBON	1.2K	5%	1/4W	F
R612	1-202-883-11	SOLID	680K	20%	1/2W	
R613	1-216-386-11	METAL OXIDE	0.56	5%	3W	F
R614	1-249-418-11	CARBON	1.2K	5%	1/4W	
R615	1-215-436-00	METAL	4.3K	1%	1/4W	
R616	1-214-742-00	METAL	3.6K	1%	1/4W	
R617	1-216-356-00	METAL OXIDE	3.9	5%	1W	F
R618	1-249-418-11	CARBON	1.2K	5%	1/4W	
R619	1-216-444-11	METAL OXIDE	82K	5%	1W	F
R620	1-249-418-11	CARBON	1.2K	5%	1/4W	F
R621	1-247-691-11	CARBON	18	5%	1/4W	F
R622	1-249-424-11	CARBON	3.9K	5%	1/4W	F
R623	1-249-417-11	CARBON	1K	5%	1/4W	
R624	1-214-780-00	METAL	130K	1%	1/4W	
R625	1-216-386-11	METAL OXIDE	0.56	5%	3W	F
R626	1-216-356-00	METAL OXIDE	3.9	5%	1W	F
R627	1-202-883-11	SOLID	680K	20%	1/2W	
R628	1-249-410-11	CARBON	270	5%	1/4W	F
R629	1-207-620-00	WIREWOUND	1	10%	3W	F
R631	1-249-417-11	CARBON	1K	5%	1/4W	F
R632	1-214-913-00	METAL	100K	1%	1/2W	
R633	1-249-429-11	CARBON	10K	5%	1/4W	
R634	1-249-441-11	CARBON	100K	5%	1/4W	
R635	1-215-897-11	METAL OXIDE	6.8K	5%	2W	F
R636	1-260-065-91	CARBON	1.2	5%	1/2W	
R638	1-249-405-11	CARBON	100	5%	1/4W	F
R639	1-249-405-11	CARBON	100	5%	1/4W	F
R640	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R641	1-249-429-11	CARBON	10K	5%	1/4W	
R642	1-215-421-00	METAL	1K	1%	1/4W	
R643	1-260-123-11	CARBON	100K	5%	1/2W	
R644	1-249-415-11	CARBON	680	5%	1/4W	
R645	1-249-417-11	CARBON	1K	5%	1/4W	
R646	1-215-465-00	METAL	68K	1%	1/4W	
R647	1-215-425-00	METAL	1.5K	1%	1/4W	
R649	1-249-424-11	CARBON	3.9K	5%	1/4W	
R650	1-249-377-11	CARBON	0.47	5%	1/4W	F
R651	1-215-429-00	METAL	2.2K	1%	1/4W	
⧓R652 ⚠		METAL			1/4W	
R654	1-215-429-00	METAL	2.2K	1%	1/4W	
R655	1-249-426-11	CARBON	5.6K	5%	1/4W	
R656	1-215-454-00	METAL	24K	1%	1/4W	
R657	1-216-386-11	METAL OXIDE	0.56	5%	3W	F
R660	1-249-413-11	CARBON	470	5%	1/4W	
R661 ⚠	1-202-884-91	SOLID	820K	20%	1/2W	
R662 ⚠	1-205-900-11	WIREWOUND	1.2	5%	15W	F
R663 ⚠	1-215-904-91	METAL OXIDE	100K	5%	2W	F
R664	1-216-380-11	METAL OXIDE	8.2	5%	2W	F
R665	1-216-380-11	METAL OXIDE	8.2	5%	2W	F
R666	1-249-377-11	CARBON	0.47	5%	1/4W	F
R667 ⚠	1-202-888-91	SOLID	2.2M	20%	1/2W	
R668 ⚠	1-215-904-91	METAL OXIDE	100K	5%	2W	F
R669	1-249-377-11	CARBON	0.47	5%	1/4W	F
R671	1-249-405-11	CARBON	100	5%	1/4W	
R672	1-215-415-00	METAL	560	1%	1/4W	
R673	1-215-429-00	METAL	2.2K	1%	1/4W	
R674	1-249-433-11	CARBON	22K	5%	1/4W	
R675	1-249-377-11	CARBON	0.47	5%	1/4W	F
R676	1-249-428-11	CARBON	8.2K	5%	1/4W	
R677	1-249-425-11	CARBON	4.7K	5%	1/4W	
R678	1-249-433-11	CARBON	22K	5%	1/4W	
R679	1-215-438-00	METAL	5.1K	1%	1/4W	
R680	1-216-433-00	METAL OXIDE	1.2K	5%	1W	F
R681	1-216-341-11	WIREWOUND	0.22	10%	1/2W	
R683	1-215-429-00	METAL	2.2K	1%	1/4W	
R684	1-249-421-11	CARBON	2.2K	5%	1/4W	
R685	1-216-469-11	METAL OXIDE	12	5%	3W	F
R686	1-249-377-11	CARBON	0.47	5%	1/4W	F
R687	1-249-417-11	CARBON	1K	5%	1/4W	F
R689	1-247-742-11	CARBON	180	5%	1/2W	F
R690	1-215-919-11	METAL OXIDE	2.2K	5%	3W	F
R691	1-249-421-11	CARBON	2.2K	5%	1/4W	
R692	1-215-442-00	METAL	7.5K	1%	1/4W	
R694	1-249-421-11	CARBON	2.2K	5%	1/4W	
R697	1-249-382-11	CARBON	1.2	5%	1/4W	F
R698	1-216-386-11	METAL OXIDE	0.56	5%	3W	F

<VARIABLE RESISTOR>

REF.NO.	PART NO.	DESCRIPTION
RV601	1-241-627-11	RES, ADJ, CARBON 1K
	*3-738-015-01	COVER, (DIA. 6) CARBON VR; RV601
RV602	1-241-627-11	RES, ADJ, CARBON 1K
RV603	1-241-627-11	RES, ADJ, CARBON 1K

<RELAY>

REF.NO.	PART NO.	DESCRIPTION
RY601 ⚠	1-515-805-11	RELAY, POWER
RY602 ⚠	1-515-805-11	RELAY, POWER

<TRANSFORMER>

REF.NO.	PART NO.	DESCRIPTION
T601 ⚠	1-450-791-12	TRANSFORMER, POWER ISOLATION
T603 ⚠	1-424-020-11	PRT
T604 ⚠	1-450-149-11	TRANSFORMER, HEATER
T605 ⚠	1-424-023-12	TRANSFORMER, LINE FILTER
T606 ⚠	1-421-372-21	TRANSFORMER, FERRITE (LFT)
T608 ⚠	1-424-621-11	TRANSFORMER, FERRITE (BS.P.T)

- The components identified by ⧓ in this manual have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. Should replacement be required, replace only with the value originally used.

Les composants identifiés par une trame et une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

<VARISTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
VDR601⚠	1-809-786-11	VARISTOR	

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*A-1331-206-A CR BOARD, COMPLETE
****

REF.NO.	PART NO.	DESCRIPTION	REMARK
	*4-341-751-01	EYELET (EY4,EY5,EY16,EY18)	
	*4-341-752-01	EYELET (EY1~EY3)	

<CAPACITOR>

REF.NO.	PART NO.	DESCRIPTION				REMARK
C701	1-162-115-00	CERAMIC	330PF	10%	2KV	
C702	1-123-948-00	ELECT	22MF	20%	250V	
C703	1-102-050-00	CERAMIC	0.01MF		500V	
C704	1-162-115-00	CERAMIC	330PF	10%	2KV	
C705	1-130-479-00	MYLAR	0.0047MF	5%	50V	
C706	1-101-006-00	CERAMIC	0.047MF		50V	
C707	1-101-006-00	CERAMIC	0.047MF		50V	
C709	1-124-120-11	ELECT	220MF	20%	16V	
C710	1-124-120-11	ELECT	220MF	20%	16V	
C711	1-102-112-00	CERAMIC	330PF	10%	50V	

<CONNECTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
CR1	*1-508-784-00	PIN, CONNECTOR (5MM PITCH) 1P	
CR3	*1-508-765-00	PIN, CONNECTOR (5MM PITCH) 3P	
CR4	*1-564-511-11	PLUG, CONNECTOR 8P	
CR15	*1-564-508-11	PLUG, CONNECTOR 5P	

<PICTURE TUBE SOCKET>

REF.NO.	PART NO.	DESCRIPTION	REMARK
CRT701⚠	1-251-026-11	SOCKET, PICTURE TUBE	

<DIODE>

REF.NO.	PART NO.	DESCRIPTION	REMARK
D701	8-719-911-19	DIODE 1SS119	
D702	8-719-911-19	DIODE 1SS119	
D703	8-719-911-19	DIODE 1SS119	
D704	8-719-911-19	DIODE 1SS119	
D705	8-719-911-19	DIODE 1SS119	
D706	8-719-911-19	DIODE 1SS119	
D707	8-719-110-36	DIODE RD13ES-B2	

<COIL>

REF.NO.	PART NO.	DESCRIPTION		REMARK
L701	1-408-429-00	INDUCTOR	470UH	
L702	1-408-159-00	COIL, SPOOK CHOKE	3.3UH	
L703	1-408-159-00	COIL, SPOOK CHOKE	3.3UH	
L704	1-408-413-00	INDUCTOR	22UH	

<NEON LAMP>

REF.NO.	PART NO.	DESCRIPTION	REMARK
NL701	1-519-108-99	LAMP, NEON	
NL702	1-519-108-99	LAMP, NEON	

<TRANSISTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
Q701	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q702	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q703	8-729-119-80	TRANSISTOR 2SC2688-LK	
	4-373-933-01	SHEET (TRANSISTOR), BN; Q703	
	4-382-854-11	SCREW (M3X10), P, SW (+); Q703	
Q704	8-729-255-12	TRANSISTOR 2SC2551-0	
Q705	8-729-200-17	TRANSISTOR 2SA1091-0	
Q706	8-729-200-17	TRANSISTOR 2SA1091-0	

<RESISTOR>

REF.NO.	PART NO.	DESCRIPTION				REMARK
R701	1-202-847-00	SOLID	560K	20%	1/2W	
R702	1-202-814-11	SOLID	33K	20%	1/2W	
R703	1-202-818-00	SOLID	1K	20%	1/2W	
R704	1-202-842-11	SOLID	220K	20%	1/2W	
R705	1-202-828-11	SOLID	6.8K	20%	1/2W	
R706	1-202-561-81	SOLID	330	20%	1/2W	
R707	1-216-510-11	METAL OXIDE	8.2K	5%	5W	F
R708	1-249-405-11	CARBON	100	5%	1/4W	F
R709	1-249-405-11	CARBON	100	5%	1/4W	F
R710	1-215-927-00	METAL OXIDE	47K	5%	3W	F
R711	1-249-405-11	CARBON	100	5%	1/4W	F
R712	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R714	1-249-401-11	CARBON	47	5%	1/4W	
R716	1-249-405-11	CARBON	100	5%	1/4W	
R717	1-249-403-11	CARBON	68	5%	1/4W	
R718	1-249-412-11	CARBON	390	5%	1/4W	
R719	1-249-407-11	CARBON	150	5%	1/4W	
R720	1-249-405-11	CARBON	100	5%	1/4W	
R721	1-249-409-11	CARBON	220	5%	1/4W	
R722	1-215-423-00	METAL	1.2K	1%	1/4W	
R723	1-249-410-11	CARBON	270	5%	1/4W	
R724	1-215-429-00	METAL	2.2K	1%	1/4W	

<SPARK GAP>

REF.NO.	PART NO.	DESCRIPTION	REMARK
SG701	1-519-422-11	GAP, SPARK	
SG702	1-519-422-11	GAP, SPARK	

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*A-1331-207-A CG BOARD, COMPLETE
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REF.NO.	PART NO.	DESCRIPTION	REMARK
	*4-341-751-01	EYELET (EY9,EY10,EY17)	
	*4-341-752-01	EYELET (EY6~EY8)	
	4-373-933-01	SHEET (TRANSISTOR), BN	
	4-382-854-11	SCREW (M3X10), P, SW (+)	

<CAPACITOR>

REF.NO.	PART NO.	DESCRIPTION				REMARK
C731	1-162-115-00	CERAMIC	330PF	10%	2KV	
C732	1-123-948-00	ELECT	22MF	20%	250V	
C733	1-102-050-00	CERAMIC	0.01MF		500V	
C734	1-162-115-00	CERAMIC	330PF	10%	2KV	
C735	1-130-479-00	MYLAR	0.0047MF	5%	50V	
C736	1-101-006-00	CERAMIC	0.047MF		50V	
C737	1-101-006-00	CERAMIC	0.047MF		50V	
C739	1-124-120-11	ELECT	220MF	20%	16V	
C740	1-124-120-11	ELECT	220MF	20%	16V	
C741	1-102-112-00	CERAMIC	330PF	10%	50V	

<CONNECTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
CG1	*1-508-784-00	PIN, CONNECTOR (5MM PITCH) 1P	
CG3	*1-508-765-00	PIN, CONNECTOR (5MM PITCH) 3P	
CG16	*1-564-508-11	PLUG, CONNECTOR 5P	

<PICTURE TUBE SOCKET>

REF.NO.	PART NO.	DESCRIPTION	REMARK
CRT731⚠	1-251-026-11	SOCKET, PICTURE TUBE	

CG **CB**

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifiés par une trame et par une marque ⚠ sont d'une importance critique pour la sécurité. Ne les remplacer que par des pièces de numéro spécifié.

<DIODE>

REF.NO.	PART NO.	DESCRIPTION	REMARK
D731	8-719-911-19	DIODE 1SS119	
D732	8-719-911-19	DIODE 1SS119	
D733	8-719-911-19	DIODE 1SS119	
D734	8-719-911-19	DIODE 1SS119	
D735	8-719-911-19	DIODE 1SS119	
D736	8-719-911-19	DIODE 1SS119	
D737	8-719-911-19	DIODE 1SS119	

<COIL>

REF.NO.	PART NO.	DESCRIPTION		REMARK
L731	1-408-429-00	INDUCTOR	470UH	
L732	1-408-159-00	COIL, SPOOK CHOKE	3.3UH	
L733	1-408-159-00	COIL, SPOOK CHOKE	3.3UH	
L734	1-408-413-00	INDUCTOR	22UH	

<NEON LAMP>

REF.NO.	PART NO.	DESCRIPTION	REMARK
NL731	1-519-108-99	LAMP, NEON	
NL732	1-519-108-99	LAMP, NEON	

<TRANSISTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
Q731	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q732	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q733	8-729-119-80	TRANSISTOR 2SC2688-LK	
Q734	8-729-255-12	TRANSISTOR 2SC2551-O	
Q735	8-729-200-17	TRANSISTOR 2SA1091-O	
Q736	8-729-200-17	TRANSISTOR 2SA1091-O	

<RESISTOR>

REF.NO.	PART NO.	DESCRIPTION				REMARK
R731	1-202-847-00	SOLID	560K	20%	1/2W	
R732	1-202-814-11	SOLID	33K	20%	1/2W	
R733	1-202-818-00	SOLID	1K	20%	1/2W	
R734	1-202-842-11	SOLID	220K	20%	1/2W	
R735	1-202-828-11	SOLID	6.8K	20%	1/2W	
R736	1-202-561-81	SOLID	330	20%	1/2W	
R737	1-216-510-11	METAL OXIDE	8.2K	5%	5W	F
R738	1-249-405-11	CARBON	100	5%	1/4W	F
R739	1-249-405-11	CARBON	100	5%	1/4W	F
R740	1-215-927-00	METAL OXIDE	47K	5%	3W	F
R741	1-249-405-11	CARBON	100	5%	1/4W	F
R742	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R744	1-249-401-11	CARBON	47	5%	1/4W	
R745	1-215-455-00	METAL	27K	1%	1/4W	
R746	1-249-405-11	CARBON	100	5%	1/4W	
R747	1-249-403-11	CARBON	68	5%	1/4W	
R748	1-249-412-11	CARBON	390	5%	1/4W	
R749	1-249-410-11	CARBON	270	5%	1/4W	
R750	1-249-405-11	CARBON	100	5%	1/4W	
R751	1-249-409-11	CARBON	220	5%	1/4W	
R752	1-215-423-00	METAL	1.2K	1%	1/4W	
R754	1-215-429-00	METAL	2.2K	1%	1/4W	

<SPARK GAP>

REF.NO.	PART NO.	DESCRIPTION	REMARK
SG731	1-519-422-11	GAP, SPARK	
SG732	1-519-422-11	GAP, SPARK	

****

REF.NO.	PART NO.	DESCRIPTION	REMARK
	*A-1331-208-A	CB BOARD, COMPLETE	

****

REF.NO.	PART NO.	DESCRIPTION	REMARK
	*4-341-751-01	EYELET (EY14,EY15)	
	*4-341-752-01	EYELET (EY11~EY13)	
	4-373-933-01	SHEET (TRANSISTOR), BN	
	4-382-854-11	SCREW (M3X10), P, SW (+)	

<CAPACITOR>

REF.NO.	PART NO.	DESCRIPTION				REMARK
C761	1-162-115-00	CERAMIC	330PF	10%	2KV	
C762	1-123-948-00	ELECT	22MF	20%	250V	
C763	1-102-050-00	CERAMIC	0.01MF		500V	
C764	1-162-115-00	CERAMIC	330PF	10%	2KV	
C765	1-130-479-00	MYLAR	0.0047MF	5%	50V	
C766	1-101-006-00	CERAMIC	0.047MF		50V	
C767	1-101-006-00	CERAMIC	0.047MF		50V	
C769	1-124-120-11	ELECT	220MF	20%	16V	
C770	1-124-120-11	ELECT	220MF	20%	16V	
C771	1-102-112-00	CERAMIC	330PF	10%	50V	

<CONNECTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
CB1	*1-508-784-00	PIN, CONNECTOR (5MM PITCH) 1P	
CB3	*1-508-765-00	PIN, CONNECTOR (5MM PITCH) 3P	
CB4	*1-564-511-11	PLUG, CONNECTOR 8P	
CB5	*1-564-511-11	PLUG, CONNECTOR 8P	
CB17	*1-564-508-11	PLUG, CONNECTOR 5P	

<PICTURE TUBE SOCKET>

REF.NO.	PART NO.	DESCRIPTION	REMARK
CRT761	⚠ 1-251-026-11	SOCKET, PICTURE TUBE	

<DIODE>

REF.NO.	PART NO.	DESCRIPTION	REMARK
D761	8-719-911-19	DIODE 1SS119	
D762	8-719-911-19	DIODE 1SS119	
D763	8-719-911-19	DIODE 1SS119	
D764	8-719-911-19	DIODE 1SS119	
D765	8-719-911-19	DIODE 1SS119	
D766	8-719-911-19	DIODE 1SS119	
D768	8-719-911-19	DIODE 1SS119	
D769	8-719-109-81	DIODE RD4.7ES-B2	

<COIL>

REF.NO.	PART NO.	DESCRIPTION		REMARK
L761	1-408-429-00	INDUCTOR	470UH	
L762	1-408-159-00	COIL, SPOOK CHOKE	3.3UH	
L763	1-408-159-00	COIL, SPOOK CHOKE	3.3UH	
L764	1-408-413-00	INDUCTOR	22UH	

<NEON LAMP>

REF.NO.	PART NO.	DESCRIPTION	REMARK
NL761	1-519-108-99	LAMP, NEON	
NL762	1-519-108-99	LAMP, NEON	

<TRANSISTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
Q761	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q762	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q763	8-729-119-80	TRANSISTOR 2SC2688-LK	
Q764	8-729-255-12	TRANSISTOR 2SC2551-O	
Q765	8-729-200-17	TRANSISTOR 2SA1091-O	
Q766	8-729-200-17	TRANSISTOR 2SA1091-O	

<RESISTOR>

REF.NO.	PART NO.	DESCRIPTION				REMARK
R761	1-202-847-00	SOLID	560K	20%	1/2W	
R762	1-202-814-11	SOLID	33K	20%	1/2W	
R763	1-202-818-00	SOLID	1K	20%	1/2W	
R764	1-202-842-11	SOLID	220K	20%	1/2W	
R765	1-202-828-11	SOLID	6.8K	20%	1/2W	
R766	1-202-561-81	SOLID	330	20%	1/2W	
R767	1-216-510-11	METAL OXIDE	8.2K	5%	5W	F
R768	1-249-405-11	CARBON	100	5%	1/4W	F
R769	1-249-405-11	CARBON	100	5%	1/4W	F
R770	1-215-927-00	METAL OXIDE	47K	5%	3W	F
R771	1-249-405-11	CARBON	100	5%	1/4W	F
R772	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R773	1-249-413-11	CARBON	470	5%	1/4W	
R774	1-249-401-11	CARBON	47	5%	1/4W	
R776	1-249-405-11	CARBON	100	5%	1/4W	
R777	1-249-403-11	CARBON	68	5%	1/4W	
R778	1-249-412-11	CARBON	390	5%	1/4W	
R779	1-249-415-11	CARBON	680	5%	1/4W	
R780	1-249-405-11	CARBON	100	5%	1/4W	
R781	1-249-409-11	CARBON	220	5%	1/4W	
R782	1-215-423-00	METAL	1.2K	1%	1/4W	
R783	1-215-433-00	METAL	3.3K	1%	1/4W	
R784	1-215-429-00	METAL	2.2K	1%	1/4W	
R785	1-215-418-00	METAL	750	1%	1/4W	

<SPARK GAP>

REF.NO.	PART NO.	DESCRIPTION
SG761	1-519-422-11	GAP, SPARK
SG762	1-519-422-11	GAP, SPARK

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*A-1342-177-A V BOARD, COMPLETE
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*4-395-527-01 HOLDER (B), TR

<CAPACITOR>

REF.NO.	PART NO.	DESCRIPTION				REMARK
C1501	1-102-129-00	CERAMIC	0.01MF	10%	50V	
C1502	1-126-101-11	ELECT	100MF	20%	16V	
C1504	1-106-383-00	MYLAR	0.047MF		200V	
C1505	1-124-907-11	ELECT	10MF	20%	50V	
C1506	1-106-359-00	MYLAR	0.0047MF	10%	200V	
C1507	1-106-367-00	MYLAR	0.01MF	10%	100V	
C1508	1-162-318-11	CERAMIC	0.001MF	10%	500V	
C1509	1-106-367-00	MYLAR	0.01MF	10%	100V	
C1510	1-126-355-11	ELECT	33MF	20%	160V	
C1511	1-124-668-91	ELECT	2.2MF	20%	200V	
C1512	1-106-391-12	MYLAR	0.1MF	10%	200V	
C1513	1-162-318-11	CERAMIC	0.001MF	10%	500V	
C1514	1-102-951-00	CERAMIC	15PF	5%	50V	
C1515	1-102-959-00	CERAMIC	22PF	5%	50V	
C1516	1-102-963-00	CERAMIC	33PF	5%	50V	
C1517	1-123-875-11	ELECT	10MF	20%	50V	
C1518	1-102-074-00	CERAMIC	0.001MF	10%	50V	
C1519	1-106-359-00	MYLAR	0.0047MF	10%	200V	
C1520	1-126-803-11	ELECT	47MF	20%	16V	
C1521	1-124-907-11	ELECT	10MF	20%	50V	
C1551	1-124-122-11	ELECT	100MF	20%	50V	
C1552	1-124-122-11	ELECT	100MF	20%	50V	
C1553	1-102-824-00	CERAMIC	470PF	5%	50V	
C1554	1-102-824-00	CERAMIC	470PF	5%	50V	
C1555	1-130-483-00	MYLAR	0.01MF	5%	50V	
C1556	1-130-483-00	MYLAR	0.01MF	5%	50V	
C1557	1-102-824-00	CERAMIC	470PF	5%	50V	
C1558	1-102-824-00	CERAMIC	470PF	5%	50V	
C1559	1-102-824-00	CERAMIC	470PF	5%	50V	
C1560	1-102-824-00	CERAMIC	470PF	5%	50V	
C1561	1-130-483-00	MYLAR	0.01MF	5%	50V	
C1562	1-130-483-00	MYLAR	0.01MF	5%	50V	
C1563	1-130-483-00	MYLAR	0.01MF	5%	50V	

<DIODE>

REF.NO.	PART NO.	DESCRIPTION
D1501	8-719-911-19	DIODE 1SS119
D1502	8-719-911-19	DIODE 1SS119
D1503	8-719-911-19	DIODE 1SS119
D1504	8-719-911-19	DIODE 1SS119
D1505	8-719-911-19	DIODE 1SS119
D1506	8-719-911-19	DIODE 1SS119
D1507	8-719-110-88	DIODE RD39ES-B2
D1508	8-719-110-88	DIODE RD39ES-B2
D1509	8-719-911-19	DIODE 1SS119

<IC>

REF.NO.	PART NO.	DESCRIPTION
IC1551	8-759-145-58	IC UPC4558C
IC1552	8-759-912-77	IC LM324N

<COIL>

REF.NO.	PART NO.	DESCRIPTION	
L1502	1-408-418-00	INDUCTOR	56UH

<TRANSISTOR>

REF.NO.	PART NO.	DESCRIPTION
Q1501	8-729-208-39	TRANSISTOR 2SA1306A-Y
Q1502	8-729-208-72	TRANSISTOR 2SC3298B-Y
Q1503	8-729-119-78	TRANSISTOR 2SC2785-HFE
Q1504	8-729-119-78	TRANSISTOR 2SC2785-HFE
Q1505	8-729-119-76	TRANSISTOR 2SA1175-HFE
Q1506	8-729-119-78	TRANSISTOR 2SC2785-HFE
Q1507	8-729-119-78	TRANSISTOR 2SC2785-HFE
Q1508	8-729-142-86	TRANSISTOR 2SC3733
Q1551	8-729-231-60	TRANSISTOR 2SD1406-YGR
Q1552	8-729-141-83	TRANSISTOR 2SB1094-LK
Q1553	8-729-231-60	TRANSISTOR 2SD1406-YGR
Q1554	8-729-141-83	TRANSISTOR 2SB1094-LK
Q1555	8-729-231-60	TRANSISTOR 2SD1406-YGR
Q1556	8-729-141-83	TRANSISTOR 2SB1094-LK

<RESISTOR>

REF.NO.	PART NO.	DESCRIPTION				REMARK
R1501	1-249-451-71	CARBON	2.2	5%	1/4W	F
R1502	1-249-414-11	CARBON	560	5%	1/4W	F
R1503	1-247-734-11	CARBON	39	5%	1/2W	F
R1504	1-249-384-11	CARBON	1.8	5%	1/4W	F
R1505	1-249-405-11	CARBON	100	5%	1/4W	
R1506	1-249-419-11	CARBON	1.5K	5%	1/4W	
R1507	1-249-412-11	CARBON	390	5%	1/4W	
R1508	1-249-436-11	CARBON	39K	5%	1/4W	
R1509	1-249-421-11	CARBON	2.2K	5%	1/4W	
R1510	1-249-436-11	CARBON	39K	5%	1/4W	
R1511	1-249-418-11	CARBON	1.2K	5%	1/4W	
R1512	1-249-441-11	CARBON	100K	5%	1/4W	
R1513	1-249-432-11	CARBON	18K	5%	1/4W	
R1514	1-249-405-11	CARBON	100	5%	1/4W	
R1515	1-249-435-11	CARBON	33K	5%	1/4W	
R1517	1-247-713-11	CARBON	1K	5%	1/4W	F

REF.NO.	PART NO.	DESCRIPTION				REMARK
R1519	1-215-916-00	METAL OXIDE	680	5%	3W	F
R1520	1-249-432-11	CARBON	18K	5%	1/4W	
R1521	1-249-414-11	CARBON	560	5%	1/4W	
R1522	1-249-384-11	CARBON	1.8	5%	1/4W	F
R1523	1-249-400-11	CARBON	39	5%	1/4W	F
R1524	1-249-418-11	CARBON	1.2K	5%	1/4W	
R1525	1-249-421-11	CARBON	2.2K	5%	1/4W	
R1526	1-249-426-11	CARBON	5.6K	5%	1/4W	
R1527	1-249-414-11	CARBON	560	5%	1/4W	
R1528	1-249-429-11	CARBON	10K	5%	1/4W	
R1529	1-249-414-11	CARBON	560	5%	1/4W	
R1530	1-216-451-11	METAL OXIDE	120	5%	2W	F
R1531	1-249-429-11	CARBON	10K	5%	1/4W	
R1532	1-249-421-11	CARBON	2.2K	5%	1/4W	
R1533	1-247-903-00	CARBON	1M	5%	1/4W	
R1534	1-249-423-11	CARBON	3.3K	5%	1/4W	
R1535	1-249-392-11	CARBON	8.2	5%	1/4W	F
R1551	1-215-445-00	METAL	10K	1%	1/4W	
R1552	1-215-423-00	METAL	1.2K	1%	1/4W	
R1553	1-249-417-11	CARBON	1K	5%	1/4W	
R1554	1-215-445-00	METAL	10K	1%	1/4W	
R1555	1-215-375-00	METAL	12	1%	1/4W	
R1556	1-215-375-00	METAL	12	1%	1/4W	
R1557	1-215-375-00	METAL	12	1%	1/4W	
R1558	1-215-445-00	METAL	10K	1%	1/4W	
R1559	1-215-445-00	METAL	10K	1%	1/4W	
R1560	1-215-445-00	METAL	10K	1%	1/4W	
R1561	1-215-423-00	METAL	1.2K	1%	1/4W	
R1562	1-215-423-00	METAL	1.2K	1%	1/4W	
R1563	1-215-445-00	METAL	10K	1%	1/4W	
R1564	1-249-417-11	CARBON	1K	5%	1/4W	
R1565	1-215-445-00	METAL	10K	1%	1/4W	
R1566	1-215-375-00	METAL	12	1%	1/4W	
R1567	1-215-375-00	METAL	12	1%	1/4W	
R1568	1-215-375-00	METAL	12	1%	1/4W	
R1569	1-215-445-00	METAL	10K	1%	1/4W	
R1570	1-215-445-00	METAL	10K	1%	1/4W	
R1571	1-249-417-11	CARBON	1K	5%	1/4W	
R1572	1-215-445-00	METAL	10K	1%	1/4W	
R1573	1-215-375-00	METAL	12	1%	1/4W	
R1574	1-215-375-00	METAL	12	1%	1/4W	
R1575	1-215-375-00	METAL	12	1%	1/4W	
R1576	1-215-445-00	METAL	10K	1%	1/4W	
R1577	1-215-445-00	METAL	10K	1%	1/4W	
R1578	1-249-417-11	CARBON	1K	5%	1/4W	
R1579	1-249-417-11	CARBON	1K	5%	1/4W	
R1580	1-249-417-11	CARBON	1K	5%	1/4W	
R1581	1-249-432-11	CARBON	18K	5%	1/4W	
R1582	1-249-432-11	CARBON	18K	5%	1/4W	

<CONNECTOR>

REF.NO.	PART NO.	DESCRIPTION
V2	*1-564-518-11	PLUG, CONNECTOR 3P
V22	1-573-300-11	CONNECTOR, BOARD TO BOARD 18P

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*1-644-278-12 DS BOARD
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<CAPACITOR>

REF.NO.	PART NO.	DESCRIPTION			
C1745	1-126-101-11	ELECT	100MF	20%	16V
C1746	1-126-101-11	ELECT	100MF	20%	16V
C1747	1-126-101-11	ELECT	100MF	20%	16V
C1748	1-126-101-11	ELECT	100MF	20%	16V
C1750	1-126-233-11	ELECT	22MF	20%	25V
C1751	1-126-101-11	ELECT	100MF	20%	16V
C1752	1-126-233-11	ELECT	22MF	20%	25V
C1753	1-126-233-11	ELECT	22MF	20%	25V

<CONNECTOR>

REF.NO.	PART NO.	DESCRIPTION
DS6	1-691-182-11	CONNECTOR (BOARD TO BOARD) 12P

<IC>

REF.NO.	PART NO.	DESCRIPTION
IC1711	8-759-111-69	IC UPC1037HA
IC1712	8-759-602-19	IC M5220L
IC1713	8-759-111-69	IC UPC1037HA

<RESISTOR>

REF.NO.	PART NO.	DESCRIPTION			
R1840	1-215-445-00	METAL	10K	1%	1/4W
R1841	1-215-433-00	METAL	3.3K	1%	1/4W
R1842	1-215-465-00	METAL	68K	1%	1/4W
R1843	1-215-421-00	METAL	1K	1%	1/4W
R1844	1-215-455-00	METAL	27K	1%	1/4W
R1845	1-215-455-00	METAL	27K	1%	1/4W
R1846	1-215-421-00	METAL	1K	1%	1/4W
R1850	1-215-461-00	METAL	47K	1%	1/4W
R1851	1-215-461-00	METAL	47K	1%	1/4W
R1852	1-215-429-00	METAL	2.2K	1%	1/4W
R1853	1-215-397-00	METAL	100	1%	1/4W
R1854	1-215-429-00	METAL	2.2K	1%	1/4W
R1855	1-215-397-00	METAL	100	1%	1/4W
R1940	1-215-445-00	METAL	10K	1%	1/4W
R1941	1-215-433-00	METAL	3.3K	1%	1/4W
R1942	1-215-421-00	METAL	1K	1%	1/4W
R1943	1-215-465-00	METAL	68K	1%	1/4W
R1944	1-215-421-00	METAL	1K	1%	1/4W
R1945	1-215-455-00	METAL	27K	1%	1/4W
R1946	1-215-455-00	METAL	27K	1%	1/4W

<VARIABLE RESISTOR>

REF.NO.	PART NO.	DESCRIPTION
RV983	1-241-630-11	RES, ADJ, CARBON 10K
RV984	1-241-630-11	RES, ADJ, CARBON 10K

****

*A-1341-540-A D BOARD, COMPLETE
****

REF.NO.	PART NO.	DESCRIPTION
	1-533-223-11	CLIP, FUSE
	*4-341-751-01	EYELET (EY1~EY9)
	4-382-854-11	SCREW (M3X10), P, SW (+)
	*4-395-527-01	HOLDER (B), TR

<CAPACITOR>

REF.NO.	PART NO.	DESCRIPTION			
C901	1-126-320-11	ELECT	10MF	20%	16V
C902	1-124-477-11	ELECT	47MF	20%	16V
C903	1-130-471-00	MYLAR	0.001MF	5%	50V
C904	1-130-471-00	MYLAR	0.001MF	5%	50V
C905	1-124-477-11	ELECT	47MF	20%	16V
C906	1-126-233-11	ELECT	22MF	20%	50V
C907	1-126-101-11	ELECT	100MF	20%	16V
C908	1-124-907-11	ELECT	10MF	20%	50V
C910	1-130-483-00	MYLAR	0.01MF	5%	50V
C911	1-131-341-00	TANTALUM	0.1MF	20%	16V

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifiés par une trame et par une marque ⚠ sont d'une importance critique pour la sécurité. Ne les remplacer que par des pièces de numéro spécifié.

REF.NO.	PART NO.	DESCRIPTION			REMARK
C912	1-124-903-11	ELECT	1MF	20%	50V
C913	1-126-803-11	ELECT	47MF	20%	16V
C914	1-126-233-11	ELECT	22MF	20%	50V
C915	1-124-927-11	ELECT	4.7MF	20%	50V
C916	1-102-074-00	CERAMIC	0.001MF	10%	50V
C917	1-130-471-00	MYLAR	0.001MF	5%	50V
C918	1-102-963-00	CERAMIC	33PF	5%	50V
C919	1-102-963-00	CERAMIC	33PF	5%	50V
C920	1-102-963-00	CERAMIC	33PF	5%	50V
C921	1-102-963-00	CERAMIC	33PF	5%	50V
C922	1-102-963-00	CERAMIC	33PF	5%	50V
C923	1-102-963-00	CERAMIC	33PF	5%	50V
C931	1-102-973-00	CERAMIC	100PF	5%	50V
C932	1-124-903-11	ELECT	1MF	20%	50V
C933	1-124-234-00	ELECT	22MF	20%	16V
C934	1-124-234-00	ELECT	22MF	20%	16V
C935	1-124-234-00	ELECT	22MF	20%	16V
C936	1-124-234-00	ELECT	22MF	20%	16V
C937	1-124-234-00	ELECT	22MF	20%	16V
C938	1-124-234-00	ELECT	22MF	20%	16V
C939	1-124-234-00	ELECT	22MF	20%	16V
C940	1-126-233-11	ELECT	22MF	20%	25V
C1701	1-124-907-11	ELECT	10MF	20%	50V
C1702	1-124-907-11	ELECT	10MF	20%	50V
C1703	1-124-907-11	ELECT	10MF	20%	50V
C1704	1-123-875-11	ELECT	10MF	20%	50V
C1705	1-102-963-00	CERAMIC	33PF	5%	50V
C1706	1-102-963-00	CERAMIC	33PF	5%	50V
C1707	1-102-963-00	CERAMIC	33PF	5%	50V
C1708	1-102-963-00	CERAMIC	33PF	5%	50V
C1709	1-102-963-00	CERAMIC	33PF	5%	50V
C1710	1-102-963-00	CERAMIC	33PF	5%	50V
C1712	1-126-233-11	ELECT	22MF	20%	25V
C1713	1-102-074-00	CERAMIC	0.001MF	10%	50V
C1714	1-124-478-11	ELECT	100MF	20%	25V
C1715	1-124-478-11	ELECT	100MF	20%	25V
C1716	1-126-803-11	ELECT	47MF	20%	25V
C1717	1-126-803-11	ELECT	47MF	20%	25V
C1718	1-102-074-00	CERAMIC	0.001MF	10%	50V
C1719	1-124-234-00	ELECT	22MF	20%	16V
C1720	1-130-491-00	MYLAR	0.047MF	5%	50V
C1721	1-130-491-00	MYLAR	0.047MF	5%	50V
C1722	1-130-491-00	MYLAR	0.047MF	5%	50V
C1724	1-124-234-00	ELECT	22MF	20%	16V
C1725	1-102-963-00	CERAMIC	33PF	5%	50V
C1726	1-124-122-11	ELECT	100MF	20%	35V
C1727	1-102-963-00	CERAMIC	33PF	5%	50V
C1728	1-102-963-00	CERAMIC	33PF	5%	50V
C1729	1-106-367-00	MYLAR	0.01MF	10%	200V
C1730	1-102-963-00	CERAMIC	33PF	5%	50V
C1731	1-124-122-11	ELECT	100MF	20%	35V
C1732	1-106-367-00	MYLAR	0.01MF	10%	200V
C1733	1-102-963-00	CERAMIC	33PF	5%	50V
C1734	1-102-963-00	CERAMIC	33PF	5%	50V
C1735	1-124-122-11	ELECT	100MF	20%	35V
C1736	1-106-367-00	MYLAR	0.01MF	10%	200V
C1737	1-124-937-91	ELECT	10MF	20%	16V
C1738	1-124-122-11	ELECT	100MF	20%	35V
C1739	1-136-153-00	FILM	0.01MF	5%	50V
C1740	1-124-122-11	ELECT	100MF	20%	35V
C1741	1-124-122-11	ELECT	100MF	20%	35V
C1742	1-126-104-11	ELECT	470MF	20%	35V
C1744	1-124-478-11	ELECT	100MF	20%	25V
C1745	1-126-375-11	ELECT	100MF	20%	25V
C1763	1-126-096-11	ELECT	10MF	20%	25V
C1764	1-124-477-11	ELECT	47MF	20%	16V
C1765	1-124-477-11	ELECT	47MF	20%	16V
C1766	1-126-101-11	ELECT	100MF	20%	16V
C1769	1-126-157-11	ELECT	10MF	20%	16V
C1770	1-130-495-00	MYLAR	0.1MF	5%	50V
C1771	1-126-096-11	ELECT	10MF	20%	25V
C1772	1-126-096-11	ELECT	10MF	20%	25V

<CONNECTOR>

REF.NO.	PART NO.	DESCRIPTION
D1	*1-564-510-11	PLUG, CONNECTOR 7P
D2	*1-564-511-11	PLUG, CONNECTOR 8P
D3	*1-564-512-11	PLUG, CONNECTOR 9P
D4	*1-564-508-11	PLUG, CONNECTOR 5P
D5	*1-564-511-11	PLUG, CONNECTOR 8P
D6	1-691-169-11	PIN, CONNECTOR 12P
D7	*1-564-507-11	PLUG, CONNECTOR 4P
D8	*1-564-506-11	PLUG, CONNECTOR 3P
D9	*1-564-507-11	PLUG, CONNECTOR 4P
D14	*1-564-513-11	PLUG, CONNECTOR 10P

<DIODE>

REF.NO.	PART NO.	DESCRIPTION
D901	8-719-911-19	DIODE 1SS119
D902	8-719-911-19	DIODE 1SS119
D1701	8-719-900-95	DIODE V09G
D1702	8-719-911-19	DIODE 1SS119
D1703	8-719-900-95	DIODE V09G
D1704	8-719-900-95	DIODE V09G
D1705	8-719-900-95	DIODE V09G
D1706	8-719-900-95	DIODE V09G
D1707	8-719-911-19	DIODE 1SS119
D1708	8-719-911-19	DIODE 1SS119
D1709	8-719-911-19	DIODE 1SS119
D1710	8-719-911-19	DIODE 1SS119
D1711	8-719-911-19	DIODE 1SS119
D1712	8-719-911-19	DIODE 1SS119
D1713	8-719-911-19	DIODE 1SS119
D1714	8-719-911-19	DIODE 1SS119
D1715	8-719-911-19	DIODE 1SS119
D1716	8-719-911-19	DIODE 1SS119
D1717	8-719-911-19	DIODE 1SS119
D1718	8-719-911-19	DIODE 1SS119
D1720	8-719-109-50	DIODE RD2.0ES-B1
D1721	8-719-109-50	DIODE RD2.0ES-B1
D1722	8-719-109-50	DIODE RD2.0ES-B1
D1723	8-719-109-50	DIODE RD2.0ES-B1

<FUSE>

REF.NO.	PART NO.	DESCRIPTION
F901	⚠.1-532-745-11	FUSE, GLASS TUBE 3.15A/125V
F902	⚠.1-532-745-11	FUSE, GLASS TUBE 3.15A/125V

<IC>

REF.NO.	PART NO.	DESCRIPTION
IC901	8-759-145-58	IC UPC4558C
IC902	8-752-033-68	IC CXA1268P
IC903	8-759-701-56	IC NJM78M05FA
IC904	8-759-701-65	IC NJM79M05FA
IC905	8-759-701-89	IC NJM7915FA
IC906	8-759-148-84	IC UPC2415HF
IC907	8-759-140-53	IC UPD4053BC

REF.NO.	PART NO.	DESCRIPTION	REMARK
IC908	8-759-145-58	IC UPC4558C	
IC910	8-759-054-40	IC PA0036	
IC1701	8-759-602-19	IC M5220L	
IC1702	8-759-602-19	IC M5220L	
IC1703	8-759-602-19	IC M5220L	
IC1704	8-749-923-16	IC STK4278-L	
IC1705	8-749-923-16	IC STK4278-L	
IC1706	8-759-113-13	IC UPC1498H	
IC1707	8-759-113-13	IC UPC1498H	
IC1708	8-759-113-13	IC UPC1498H	
IC1709	8-759-145-58	IC UPC4558C	
IC1710	8-759-145-58	IC UPC4558C	
IC1714	8-759-145-58	IC UPC4558C	
IC1715	8-759-145-58	IC UPC4558C	
IC1718	8-759-145-58	IC UPC4558C	

<COIL>

REF.NO.	PART NO.	DESCRIPTION	REMARK
L901	1-459-313-00	COIL WITH CORE (HWC)	
L902	1-459-313-00	COIL WITH CORE (HWC)	
L903	1-459-313-00	COIL WITH CORE (HWC)	
L904	1-459-313-00	COIL WITH CORE (HWC)	

<TRANSISTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
Q902	8-729-900-89	TRANSISTOR DTC144ES	
Q906	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q907	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q908	8-729-900-89	TRANSISTOR DTC144ES	
Q909	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q910	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q911	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q912	8-729-119-76	TRANSISTOR 2SA1175-HFE	

<RESISTOR>

REF.NO.	PART NO.	DESCRIPTION				REMARK
R901	1-215-463-00	METAL	56K	1%	1/4W	
R902	1-215-463-00	METAL	56K	1%	1/4W	
R903	1-215-449-00	METAL	15K	1%	1/4W	
R904	1-215-455-00	METAL	27K	1%	1/4W	
R905	1-215-449-00	METAL	15K	1%	1/4W	
R906	1-215-469-00	METAL	100K	1%	1/4W	
R907	1-215-469-00	METAL	100K	1%	1/4W	
R908	1-215-469-00	METAL	100K	1%	1/4W	
R909	1-215-473-00	METAL	150K	1%	1/4W	
R910	1-215-437-00	METAL	4.7K	1%	1/4W	
R911	1-215-453-00	METAL	22K	1%	1/4W	
R912	1-215-453-00	METAL	22K	1%	1/4W	
R913	1-215-437-00	METAL	4.7K	1%	1/4W	
R914	1-215-453-00	METAL	22K	1%	1/4W	
R915	1-215-423-00	METAL	1.2K	1%	1/4W	
R916	1-215-453-00	METAL	22K	1%	1/4W	
R919	1-215-399-00	METAL	120	1%	1/4W	
R920	1-215-399-00	METAL	120	1%	1/4W	
R921	1-215-399-00	METAL	120	1%	1/4W	
R922	1-215-399-00	METAL	120	1%	1/4W	
R923	1-215-451-00	METAL	18K	1%	1/4W	
R924	1-215-433-00	METAL	3.3K	1%	1/4W	
R925	1-215-433-00	METAL	3.3K	1%	1/4W	
R926	1-215-463-00	METAL	56K	1%	1/4W	
R927	1-215-463-00	METAL	56K	1%	1/4W	
R928	1-215-469-00	METAL	100K	1%	1/4W	
R929	1-215-433-00	METAL	3.3K	1%	1/4W	
R930	1-215-433-00	METAL	3.3K	1%	1/4W	
R931	1-215-433-00	METAL	3.3K	1%	1/4W	
R932	1-215-433-00	METAL	3.3K	1%	1/4W	
R933	1-215-433-00	METAL	3.3K	1%	1/4W	
R934	1-215-433-00	METAL	3.3K	1%	1/4W	
R935	1-215-439-00	METAL	5.6K	1%	1/4W	
R936	1-215-439-00	METAL	5.6K	1%	1/4W	
R937	1-215-439-00	METAL	5.6K	1%	1/4W	
R938	1-215-417-00	METAL	680	1%	1/4W	
R939	1-215-433-00	METAL	3.3K	1%	1/4W	
R940	1-215-429-00	METAL	2.2K	1%	1/4W	
R941	1-215-441-00	METAL	6.8K	1%	1/4W	
R942	1-215-451-00	METAL	18K	1%	1/4W	
R943	1-215-441-00	METAL	6.8K	1%	1/4W	
R944	1-215-445-00	METAL	10K	1%	1/4W	
R945	1-215-445-00	METAL	10K	1%	1/4W	
R946	1-215-445-00	METAL	10K	1%	1/4W	
R947	1-215-439-00	METAL	5.6K	1%	1/4W	
R948	1-215-455-00	METAL	27K	1%	1/4W	
R949	1-215-439-00	METAL	5.6K	1%	1/4W	
R950	1-215-429-00	METAL	2.2K	1%	1/4W	
R951	1-215-429-00	METAL	2.2K	1%	1/4W	
R952	1-215-429-00	METAL	2.2K	1%	1/4W	
R953	1-215-439-00	METAL	5.6K	1%	1/4W	
R954	1-215-439-00	METAL	5.6K	1%	1/4W	
R955	1-215-435-00	METAL	3.9K	1%	1/4W	
R956	1-215-437-00	METAL	4.7K	1%	1/4W	
R957	1-215-441-00	METAL	6.8K	1%	1/4W	
R958	1-215-437-00	METAL	4.7K	1%	1/4W	
R959	1-215-439-00	METAL	5.6K	1%	1/4W	
R960	1-215-439-00	METAL	5.6K	1%	1/4W	
R961	1-215-439-00	METAL	5.6K	1%	1/4W	
R962	1-215-441-00	METAL	6.8K	1%	1/4W	
R963	1-215-441-00	METAL	6.8K	1%	1/4W	
R964	1-215-441-00	METAL	6.8K	1%	1/4W	
R965	1-215-909-11	METAL OXIDE	47	5%	3W	F
R966	1-215-469-00	METAL	100K	1%	1/4W	
R967	1-215-421-00	METAL	1K	1%	1/4W	
R968	1-215-437-00	METAL	4.7K	1%	1/4W	
R969	1-249-421-11	CARBON	2.2K	5%	1/4W	
R970	1-215-909-11	METAL OXIDE	47	5%	3W	F
R971	1-249-421-11	CARBON	2.2K	5%	1/4W	
R972	1-249-431-11	CARBON	15K	5%	1/4W	
R973	1-249-431-11	CARBON	15K	5%	1/4W	
R974	1-215-399-00	METAL	120	1%	1/4W	
R975	1-215-399-00	METAL	120	1%	1/4W	
R976	1-215-399-00	METAL	120	1%	1/4W	
R977	1-215-399-00	METAL	120	1%	1/4W	
R978	1-215-399-00	METAL	120	1%	1/4W	
R979	1-215-399-00	METAL	120	1%	1/4W	
R980	1-215-399-00	METAL	120	1%	1/4W	
R981	1-215-399-00	METAL	120	1%	1/4W	
R982	1-249-431-11	CARBON	15K	5%	1/4W	
R983	1-249-431-11	CARBON	15K	5%	1/4W	
R984	1-214-804-51	METAL	3.3	1%	1/2W	
R985	1-214-804-51	METAL	3.3	1%	1/2W	
R986	1-214-804-51	METAL	3.3	1%	1/2W	
R987	1-215-421-00	METAL	1K	1%	1/4W	
R988	1-215-421-00	METAL	1K	1%	1/4W	
R989	1-215-421-00	METAL	1K	1%	1/4W	
R990	1-215-421-00	METAL	1K	1%	1/4W	
R991	1-215-421-00	METAL	1K	1%	1/4W	
R992	1-215-421-00	METAL	1K	1%	1/4W	
R993	1-249-429-11	CARBON	10K	5%	1/4W	
R994	1-249-429-11	CARBON	10K	5%	1/4W	

REF.NO.	PART NO.	DESCRIPTION				REMARK
R995	1-215-457-00	METAL	33K	1%	1/4W	
R996	1-215-473-00	METAL	150K	1%	1/4W	
R999	1-215-455-00	METAL	27K	1%	1/4W	
R1701	1-249-411-11	CARBON	330	5%	1/4W	
R1702	1-249-427-11	CARBON	6.8K	5%	1/4W	
R1703	1-249-427-11	CARBON	6.8K	5%	1/4W	
R1704	1-249-411-11	CARBON	330	5%	1/4W	
R1705	1-249-411-11	CARBON	330	5%	1/4W	
R1706	1-249-427-11	CARBON	6.8K	5%	1/4W	
R1707	1-249-411-11	CARBON	330	5%	1/4W	
R1708	1-249-427-11	CARBON	6.8K	5%	1/4W	
R1709	1-249-427-11	CARBON	6.8K	5%	1/4W	
R1710	1-249-411-11	CARBON	330	5%	1/4W	
R1711	1-249-411-11	CARBON	330	5%	1/4W	
R1712	1-249-427-11	CARBON	6.8K	5%	1/4W	
R1713	1-215-886-11	METAL OXIDE	100	5%	2W	F
R1714	1-249-411-11	CARBON	330	5%	1/4W	
R1715	1-249-411-11	CARBON	330	5%	1/4W	
R1716	1-215-886-11	METAL OXIDE	100	5%	2W	F
R1717	1-249-411-11	CARBON	330	5%	1/4W	
R1718	1-249-417-11	CARBON	1K	5%	1/4W	
R1719	1-214-792-00	METAL	1	1%	1/2W	
R1720	1-249-411-11	CARBON	330	5%	1/4W	
R1721	1-249-417-11	CARBON	1K	5%	1/4W	
R1722	1-249-411-11	CARBON	330	5%	1/4W	
R1723	1-249-417-11	CARBON	1K	5%	1/4W	
R1724	1-215-886-11	METAL OXIDE	100	5%	2W	F
R1725	1-215-886-11	METAL OXIDE	100	5%	2W	F
R1726	1-215-886-11	METAL OXIDE	100	5%	2W	F
R1727	1-214-792-00	METAL	1	1%	1/2W	
R1728	1-214-792-00	METAL	1	1%	1/2W	
R1729	1-214-792-00	METAL	1	1%	1/2W	
R1730	1-249-405-11	CARBON	100	5%	1/4W	
R1731	1-249-417-11	CARBON	1K	5%	1/4W	
R1732	1-249-405-11	CARBON	100	5%	1/4W	
R1733	1-249-405-11	CARBON	100	5%	1/4W	
R1734	1-249-405-11	CARBON	100	5%	1/4W	
R1735	1-249-405-11	CARBON	100	5%	1/4W	
R1736	1-249-423-11	CARBON	3.3K	5%	1/4W	
R1737	1-249-423-11	CARBON	3.3K	5%	1/4W	
R1738	1-249-423-11	CARBON	3.3K	5%	1/4W	
R1739	1-249-423-11	CARBON	3.3K	5%	1/4W	
R1740	1-249-417-11	CARBON	1K	5%	1/4W	
R1741	1-249-423-11	CARBON	3.3K	5%	1/4W	
R1742	1-249-423-11	CARBON	3.3K	5%	1/4W	
R1743	1-249-417-11	CARBON	1K	5%	1/4W	
R1744	1-249-411-11	CARBON	330	5%	1/4W	
R1745	1-249-405-11	CARBON	100	5%	1/4W	
R1746	1-214-792-00	METAL	1	1%	1/2W	
R1747	1-215-886-11	METAL OXIDE	100	5%	2W	F
R1748	1-215-421-00	METAL	1K	1%	1/4W	
R1749	1-215-421-00	METAL	1K	1%	1/4W	
R1750	1-215-421-00	METAL	1K	1%	1/4W	
R1751	1-215-421-00	METAL	1K	1%	1/4W	
R1752	1-215-421-00	METAL	1K	1%	1/4W	
R1753	1-215-421-00	METAL	1K	1%	1/4W	
R1754	1-214-792-00	METAL	1	1%	1/2W	
R1755	1-215-469-00	METAL	100K	1%	1/4W	
R1756	1-215-437-00	METAL	4.7K	1%	1/4W	
R1757	1-215-437-00	METAL	4.7K	1%	1/4W	
R1758	1-215-437-00	METAL	4.7K	1%	1/4W	
R1759	1-249-405-11	CARBON	100	5%	1/4W	
R1760	1-249-427-11	CARBON	6.8K	5%	1/4W	
R1761	1-249-419-11	CARBON	1.5K	5%	1/4W	

REF.NO.	PART NO.	DESCRIPTION				REMARK
R1762	1-215-445-00	METAL	10K	1%	1/4W	
R1763	1-249-427-11	CARBON	6.8K	5%	1/4W	
R1764	1-249-419-11	CARBON	1.5K	5%	1/4W	
R1765	1-249-419-11	CARBON	1.5K	5%	1/4W	
R1766	1-249-427-11	CARBON	6.8K	5%	1/4W	
R1767	1-249-427-11	CARBON	6.8K	5%	1/4W	
R1768	1-249-439-11	CARBON	68K	5%	1/4W	
R1769	1-215-445-00	METAL	10K	1%	1/4W	
R1770	1-249-405-11	CARBON	100	5%	1/4W	
R1771	1-249-405-11	CARBON	100	5%	1/4W	
R1772	1-215-429-00	METAL	2.2K	1%	1/4W	
R1773	1-215-429-00	METAL	2.2K	1%	1/4W	
R1774	1-215-421-00	METAL	1K	1%	1/4W	
R1775	1-249-429-11	CARBON	10K	5%	1/4W	
R1776	1-215-421-00	METAL	1K	1%	1/4W	
R1777	1-249-423-11	CARBON	3.3K	5%	1/4W	
R1778	1-215-421-00	METAL	1K	1%	1/4W	
R1779	1-215-898-11	METAL OXIDE	10K	5%	2W	F
R1780	1-214-804-51	METAL	3.3	1%	1/2W	
R1781	1-214-804-51	METAL	3.3	1%	1/2W	
R1782	1-215-898-11	METAL OXIDE	10K	5%	2W	F
R1783	1-214-804-51	METAL	3.3	1%	1/2W	
R1784	1-214-804-51	METAL	3.3	1%	1/2W	
R1785	1-215-898-11	METAL OXIDE	10K	5%	2W	F
R1786	1-214-804-51	METAL	3.3	1%	1/2W	
R1787	1-214-804-51	METAL	3.3	1%	1/2W	
R1788	1-249-433-11	CARBON	22K	5%	1/4W	
R1789	1-249-441-11	CARBON	100K	5%	1/4W	
R1790	1-249-433-11	CARBON	22K	5%	1/4W	
R1791	1-249-429-11	CARBON	10K	5%	1/4W	
R1792	1-215-445-00	METAL	10K	1%	1/4W	
R1793	1-249-405-11	CARBON	100	5%	1/4W	
R1794	1-215-429-00	METAL	2.2K	1%	1/4W	
R1795	1-249-433-11	CARBON	22K	5%	1/4W	
R1796	1-249-405-11	CARBON	100	5%	1/4W	
R1797	1-249-429-11	CARBON	10K	5%	1/4W	
R1798	1-249-423-11	CARBON	3.3K	5%	1/4W	
R1800	1-249-405-11	CARBON	100	5%	1/4W	
R1801	1-215-439-00	METAL	5.6K	1%	1/4W	
R1802	1-215-439-00	METAL	5.6K	1%	1/4W	
R1803	1-215-439-00	METAL	5.6K	1%	1/4W	
R1805	1-215-439-00	METAL	5.6K	1%	1/4W	
R1806	1-249-405-11	CARBON	100	5%	1/4W	
R1807	1-249-405-11	CARBON	100	5%	1/4W	
R1808	1-214-792-00	METAL	1	1%	1/2W	
R1809	1-214-792-00	METAL	1	1%	1/2W	
R1810	1-214-792-00	METAL	1	1%	1/2W	
R1811	1-214-792-00	METAL	1	1%	1/2W	
R1812	1-214-792-00	METAL	1	1%	1/2W	
R1813	1-214-792-00	METAL	1	1%	1/2W	
R1814	1-249-431-11	CARBON	15K	5%	1/4W	
R1815	1-247-885-00	CARBON	180K	5%	1/4W	
R1816	1-249-431-11	CARBON	15K	5%	1/4W	
R1817	1-247-885-00	CARBON	180K	5%	1/4W	
R1818	1-249-405-11	CARBON	100	5%	1/4W	
R1819	1-215-437-00	METAL	4.7K	1%	1/4W	
R1820	1-215-437-00	METAL	4.7K	1%	1/4W	
R1821	1-215-437-00	METAL	4.7K	1%	1/4W	
R1822	1-215-445-00	METAL	10K	1%	1/4W	
R1823	1-215-445-00	METAL	10K	1%	1/4W	
R1824	1-215-433-00	METAL	3.3K	1%	1/4W	
R1825	1-215-433-00	METAL	3.3K	1%	1/4W	
R1826	1-215-433-00	METAL	3.3K	1%	1/4W	

REF.NO.	PART NO.	DESCRIPTION			REMARK
R1827	1-215-445-00	METAL	10K	1%	1/4W
R1828	1-215-445-00	METAL	10K	1%	1/4W
R1829	1-249-434-11	CARBON	27K	5%	1/4W
R1830	1-249-434-11	CARBON	27K	5%	1/4W
R1831	1-249-405-11	CARBON	100	5%	1/4W
R1832	1-215-471-00	METAL	120K	1%	1/4W
R1833	1-215-471-00	METAL	120K	1%	1/4W
R1834	1-215-471-00	METAL	120K	1%	1/4W
R1835	1-215-437-00	METAL	4.7K	1%	1/4W
R1836	1-215-437-00	METAL	4.7K	1%	1/4W
R1837	1-215-421-00	METAL	1K	1%	1/4W
R1838	1-249-431-11	CARBON	15K	5%	1/4W
R1839	1-249-431-11	CARBON	15K	5%	1/4W
R1858	1-215-445-00	METAL	10K	1%	1/4W
R1859	1-215-445-00	METAL	10K	1%	1/4W
R1860	1-215-397-00	METAL	100	1%	1/4W
R1861	1-215-453-00	METAL	22K	1%	1/4W
R1862	1-215-453-00	METAL	22K	1%	1/4W
R1863	1-215-397-00	METAL	100	1%	1/4W
R1864	1-215-437-00	METAL	4.7K	1%	1/4W
R1865	1-215-453-00	METAL	22K	1%	1/4W
R1866	1-215-453-00	METAL	22K	1%	1/4W
R1867	1-215-437-00	METAL	4.7K	1%	1/4W
R1868	1-215-449-00	METAL	15K	1%	1/4W
R1869	1-215-445-00	METAL	10K	1%	1/4W
R1870	1-215-445-00	METAL	10K	1%	1/4W
R1871	1-215-445-00	METAL	10K	1%	1/4W
R1872	1-215-437-00	METAL	4.7K	1%	1/4W
R1873	1-215-437-00	METAL	4.7K	1%	1/4W
R1874	1-215-437-00	METAL	4.7K	1%	1/4W
R1875	1-215-437-00	METAL	4.7K	1%	1/4W
R1876	1-215-437-00	METAL	4.7K	1%	1/4W
R1877	1-215-437-00	METAL	4.7K	1%	1/4W
R1878	1-215-475-00	METAL	180K	1%	1/4W
R1879	1-215-475-00	METAL	180K	1%	1/4W
R1880	1-215-475-00	METAL	180K	1%	1/4W
R1881	1-215-461-00	METAL	47K	1%	1/4W
R1882	1-215-445-00	METAL	10K	1%	1/4W
R1883	1-215-453-00	METAL	22K	1%	1/4W
R1884	1-215-397-00	METAL	100	1%	1/4W
R1885	1-215-445-00	METAL	10K	1%	1/4W
R1886	1-215-445-00	METAL	10K	1%	1/4W
R1887	1-215-397-00	METAL	100	1%	1/4W
R1888	1-215-461-00	METAL	47K	1%	1/4W
R1889	1-215-457-00	METAL	33K	1%	1/4W
R1890	1-215-457-00	METAL	33K	1%	1/4W
R1892	1-215-445-00	METAL	10K	1%	1/4W
R1894	1-215-429-00	METAL	2.2K	1%	1/4W
R1895	1-215-445-00	METAL	10K	1%	1/4W
R1896	1-215-445-00	METAL	10K	1%	1/4W
R1897	1-215-449-00	METAL	15K	1%	1/4W
R1898	1-215-445-00	METAL	10K	1%	1/4W
R1899	1-215-421-00	METAL	1K	1%	1/4W
R1900	1-215-429-00	METAL	2.2K	1%	1/4W
R1901	1-215-449-00	METAL	15K	1%	1/4W
R1902	1-215-445-00	METAL	10K	1%	1/4W
R1903	1-215-445-00	METAL	10K	1%	1/4W
R1904	1-215-445-00	METAL	10K	1%	1/4W
R1905	1-215-445-00	METAL	10K	1%	1/4W
R1906	1-215-429-00	METAL	2.2K	1%	1/4W
R1907	1-215-445-00	METAL	10K	1%	1/4W
R1908	1-215-445-00	METAL	10K	1%	1/4W
R1909	1-215-445-00	METAL	10K	1%	1/4W
R1910	1-215-445-00	METAL	10K	1%	1/4W
R1911	1-215-453-00	METAL	22K	1%	1/4W
R1916	1-215-423-00	METAL	1.2K	1%	1/4W
R1920	1-215-453-00	METAL	22K	1%	1/4W
R1921	1-215-445-00	METAL	10K	1%	1/4W
R1922	1-215-445-00	METAL	10K	1%	1/4W
R1924	1-215-429-00	METAL	2.2K	1%	1/4W
R1925	1-215-429-00	METAL	2.2K	1%	1/4W
R1926	1-215-429-00	METAL	2.2K	1%	1/4W
R1927	1-215-445-00	METAL	10K	1%	1/4W
R1928	1-215-421-00	METAL	1K	1%	1/4W
R1929	1-215-445-00	METAL	10K	1%	1/4W
R1930	1-215-397-00	METAL	100	1%	1/4W
R1931	1-215-397-00	METAL	100	1%	1/4W
R1932	1-215-453-00	METAL	22K	1%	1/4W
R1933	1-215-453-00	METAL	22K	1%	1/4W
R1934	1-215-429-00	METAL	2.2K	1%	1/4W
R1937	1-215-445-00	METAL	10K	1%	1/4W

<VARIABLE RESISTOR>

RV901	1-241-631-11	RES, ADJ, CARBON	22K
RV902	1-241-631-11	RES, ADJ, CARBON	22K
RV903	1-241-631-11	RES, ADJ, CARBON	22K
RV904	1-241-631-11	RES, ADJ, CARBON	22K
RV905	1-241-631-11	RES, ADJ, CARBON	22K
RV906	1-241-631-11	RES, ADJ, CARBON	22K
RV907	1-241-631-11	RES, ADJ, CARBON	22K
RV908	1-241-631-11	RES, ADJ, CARBON	22K
RV909	1-241-631-11	RES, ADJ, CARBON	22K
RV910	1-241-631-11	RES, ADJ, CARBON	22K
RV911	1-241-627-11	RES, ADJ, CARBON	1K
RV912	1-241-631-11	RES, ADJ, CARBON	22K
RV913	1-238-023-11	RES, ADJ, CARBON	470K
RV914	1-241-630-11	RES, ADJ, CARBON	10K
RV915	1-241-630-11	RES, ADJ, CARBON	10K
RV916	1-241-631-11	RES, ADJ, CARBON	22K
RV917	1-241-631-11	RES, ADJ, CARBON	22K
RV918	1-241-631-11	RES, ADJ, CARBON	22K
RV919	1-241-631-11	RES, ADJ, CARBON	22K
RV920	1-241-631-11	RES, ADJ, CARBON	22K
RV921	1-241-631-11	RES, ADJ, CARBON	22K
RV922	1-241-631-11	RES, ADJ, CARBON	22K
RV923	1-241-631-11	RES, ADJ, CARBON	22K
RV924	1-241-631-11	RES, ADJ, CARBON	22K
RV925	1-241-631-11	RES, ADJ, CARBON	22K
RV926	1-241-631-11	RES, ADJ, CARBON	22K
RV927	1-241-631-11	RES, ADJ, CARBON	22K
RV928	1-241-629-11	RES, ADJ, CARBON	4.7K
RV929	1-241-631-11	RES, ADJ, CARBON	22K
RV930	1-241-629-11	RES, ADJ, CARBON	4.7K
RV931	1-241-631-11	RES, ADJ, CARBON	22K
RV932	1-241-631-11	RES, ADJ, CARBON	22K
RV933	1-241-631-11	RES, ADJ, CARBON	22K
RV934	1-241-631-11	RES, ADJ, CARBON	22K
RV935	1-241-631-11	RES, ADJ, CARBON	22K
RV936	1-241-631-11	RES, ADJ, CARBON	22K
RV937	1-241-630-11	RES, ADJ, CARBON	10K
RV938	1-241-630-11	RES, ADJ, CARBON	10K
RV939	1-241-630-11	RES, ADJ, CARBON	10K
RV940	1-241-631-11	RES, ADJ, CARBON	22K
RV941	1-241-631-11	RES, ADJ, CARBON	22K
RV942	1-241-631-11	RES, ADJ, CARBON	22K
RV943	1-241-631-11	RES, ADJ, CARBON	22K

Les composants identifiés par une trame et par une marque ⚠ sont d'une importance critique pour la sécurité. Ne les remplacer que par des pièces de numéro spécifié.

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

REF.NO.	PART NO.	DESCRIPTION	REMARK
RV944	1-241-631-11	RES, ADJ, CARBON 22K	
RV945	1-241-631-11	RES, ADJ, CARBON 22K	
RV946	1-241-631-11	RES, ADJ, CARBON 22K	
RV947	1-241-631-11	RES, ADJ, CARBON 22K	
RV948	1-241-631-11	RES, ADJ, CARBON 22K	
RV949	1-241-631-11	RES, ADJ, CARBON 22K	
RV950	1-241-631-11	RES, ADJ, CARBON 22K	
RV951	1-241-631-11	RES, ADJ, CARBON 22K	
RV952	1-241-631-11	RES, ADJ, CARBON 22K	
RV953	1-241-631-11	RES, ADJ, CARBON 22K	
RV954	1-241-631-11	RES, ADJ, CARBON 22K	
RV956	1-241-631-11	RES, ADJ, CARBON 22K	
RV957	1-241-631-11	RES, ADJ, CARBON 22K	
RV958	1-241-631-11	RES, ADJ, CARBON 22K	
RV959	1-241-631-11	RES, ADJ, CARBON 22K	
RV960	1-241-630-11	RES, ADJ, CARBON 10K	
RV961	1-241-631-11	RES, ADJ, CARBON 22K	
RV962	1-241-631-11	RES, ADJ, CARBON 22K	
RV963	1-241-631-11	RES, ADJ, CARBON 22K	
RV964	1-241-631-11	RES, ADJ, CARBON 22K	
RV965	1-241-631-11	RES, ADJ, CARBON 22K	
RV966	1-241-631-11	RES, ADJ, CARBON 22K	
RV967	1-241-631-11	RES, ADJ, CARBON 22K	
RV968	1-241-631-11	RES, ADJ, CARBON 22K	
RV969	1-241-631-11	RES, ADJ, CARBON 22K	
RV970	1-241-631-11	RES, ADJ, CARBON 22K	
RV971	1-241-631-11	RES, ADJ, CARBON 22K	
RV972	1-241-631-11	RES, ADJ, CARBON 22K	
RV973	1-241-631-11	RES, ADJ, CARBON 22K	
RV974	1-241-631-11	RES, ADJ, CARBON 22K	
RV975	1-241-631-11	RES, ADJ, CARBON 22K	
RV976	1-241-631-11	RES, ADJ, CARBON 22K	
RV977	1-241-631-11	RES, ADJ, CARBON 22K	
RV978	1-241-631-11	RES, ADJ, CARBON 22K	
RV979	1-241-631-11	RES, ADJ, CARBON 22K	
RV980	1-241-632-11	RES, ADJ, CARBON 47K	
RV981	1-241-631-11	RES, ADJ, CARBON 22K	
RV982	1-241-631-11	RES, ADJ, CARBON 22K	

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	*1-643-591-12	H1 BOARD ********	
	4-033-777-01	HOLDER, LED	
	*4-341-751-01	EYELET (EY1601)	
	*4-374-987-01	GUIDE, LIGHT	
	*4-381-686-01	BRACKET (B), LIGHT GUIDE	
		<CAPACITOR>	
C1601	1-124-907-11	ELECT 10MF 20% 50V	
C1602	1-124-907-11	ELECT 10MF 20% 50V	
C1603	1-124-907-11	ELECT 10MF 20% 50V	
C1604	1-124-907-11	ELECT 10MF 20% 50V	
		<DIODE>	
D1601	8-719-812-41	DIODE TLR124	
D1602	8-719-812-41	DIODE TLR124	
		<CONNECTOR>	
H11	*1-564-526-11	PLUG, CONNECTOR 11P	
H15	*1-564-517-11	PLUG, CONNECTOR 2P	
		<IC>	
IC1601	8-741-148-33	IC SBX1483-59	
		<RESISTOR>	
R1601	1-249-430-11	CARBON 12K 5% 1/4W	
R1602	1-249-425-11	CARBON 4.7K 5% 1/4W	
R1603	1-249-421-11	CARBON 2.2K 5% 1/4W	
R1604	1-249-419-11	CARBON 1.5K 5% 1/4W	
R1606	1-249-405-11	CARBON 100 5% 1/4W	
R1607	1-249-405-11	CARBON 100 5% 1/4W	
R1608	1-249-411-11	CARBON 330 5% 1/4W	
R1609	1-249-411-11	CARBON 330 5% 1/4W	
		<SWITCH>	
S1601	1-572-198-11	SWITCH, TACTIL	
S1602	1-572-198-11	SWITCH, TACTIL	
S1603	1-572-198-11	SWITCH, TACTIL	
S1604	1-572-198-11	SWITCH, TACTIL	
S1605	1-572-198-11	SWITCH, TACTIL	
S1606⚠	1-571-731-21	SWITCH, TACTIL (POWER)	

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	*1-643-592-12	H2 BOARD ********	
	*4-341-751-01	EYELET (EY1651~EY1653)	
		<CAPACITOR>	
C1651	1-124-477-11	ELECT 47MF 20% 16V	
C1655	1-124-927-11	ELECT 4.7MF 20% 50V	
		<DIODE>	
D1651	8-719-911-55	DIODE U05G	
D1652	8-719-911-55	DIODE U05G	
D1653	8-719-108-12	DIODE RD9.1E-W	
D1654	8-719-108-12	DIODE RD9.1E-W	
D1655	8-719-108-12	DIODE RD9.1E-W	
D1659	8-719-911-19	DIODE 1SS119	
D1660	8-719-110-88	DIODE RD39ES-B2	
D1661	8-719-110-88	DIODE RD39ES-B2	
D1662	8-719-110-88	DIODE RD39ES-B2	
D1663	8-719-110-88	DIODE RD39ES-B2	
		<CONNECTOR>	
H22	*1-564-519-11	PLUG, CONNECTOR 4P	
H25	*1-564-517-11	PLUG, CONNECTOR 2P	
H26	*1-564-519-11	PLUG, CONNECTOR 4P	
H28	*1-564-518-11	PLUG, CONNECTOR 3P	
H211	*1-564-517-11	PLUG, CONNECTOR 2P	
H216	*1-564-525-11	PLUG, CONNECTOR 10P	
H220	*1-564-517-11	PLUG, CONNECTOR 2P	
H221	*1-564-517-11	PLUG, CONNECTOR 2P	
H225	*1-564-518-11	PLUG, CONNECTOR 3P	
		<JACK>	
J1651	1-695-817-11	JACK BLOCK, PIN 3P	

<TRANSISTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
Q1651	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q1652	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q1653	8-729-119-78	TRANSISTOR 2SC2785-HFE	

<RESISTOR>

R1651	1-249-419-11	CARBON	1.5K	5%	1/4W	
R1652	1-249-421-11	CARBON	2.2K	5%	1/4W	
R1653	1-249-425-11	CARBON	4.7K	5%	1/4W	
R1654	1-249-430-11	CARBON	12K	5%	1/4W	
R1655	1-249-417-11	CARBON	1K	5%	1/4W	
R1656	1-249-417-11	CARBON	1K	5%	1/4W	
R1657	1-249-436-11	CARBON	39K	5%	1/4W	
R1658	1-249-437-11	CARBON	47K	5%	1/4W	
R1659	1-249-437-11	CARBON	47K	5%	1/4W	

<RELAY>

RY1651	1-515-586-11	RELAY (DS-2)
RY1652	1-515-586-11	RELAY (DS-2)

<SWITCH>

S1651	1-572-198-11	SWITCH, TACTIL
S1652	1-572-198-11	SWITCH, TACTIL
S1653	1-572-198-11	SWITCH, TACTIL
S1654	1-572-198-11	SWITCH, TACTIL
S1655	1-572-198-11	SWITCH, TACTIL

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*1-644-632-11 YA BOARD
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*4-341-751-01 EYELET (EY7100~EY7105)

<CAPACITOR>

C7001	1-124-902-00	ELECT	0.47MF	20%	50V	
C7002	1-102-824-00	CERAMIC	470PF	5%	50V	
C7003	1-124-122-11	ELECT	100MF	20%	50V	
C7005	1-124-618-11	ELECT	2200MF	20%	35V	
C7006	1-137-399-91	FILM	0.1MF	5%	100V	
C7007	1-124-910-11	ELECT	47MF	20%	50V	
C7008	1-124-910-11	ELECT	47MF	20%	50V	
C7009	1-137-399-91	FILM	0.1MF	5%	100V	
C7010	1-124-618-11	ELECT	2200MF	20%	35V	
C7012	1-124-122-11	ELECT	100MF	20%	50V	
C7013	1-124-902-00	ELECT	0.47MF	20%	50V	
C7014	1-102-824-00	CERAMIC	470PF	5%	50V	
C7015	1-124-917-11	ELECT	33MF	20%	50V	
C7016	1-124-572-11	ELECT	100MF	20%	63V	
C7017	1-124-921-11	ELECT	470MF	20%	63V	
C7020	1-124-903-11	ELECT	1MF	20%	50V	
C7021	1-124-903-11	ELECT	1MF	20%	50V	
C7041	1-124-484-11	ELECT	220MF	20%	35V	
C7042	1-124-484-11	ELECT	220MF	20%	35V	

<DIODE>

D7041	8-719-946-29	DIODE 1SS198TA
D7042	8-719-946-29	DIODE 1SS198TA

<IC>

REF.NO.	PART NO.	DESCRIPTION	REMARK
IC7001	8-749-920-14	IC STK4412	

<TRANSISTOR>

Q7001	8-729-119-78	TRANSISTOR 2SC2785-HFE
Q7002	8-729-119-78	TRANSISTOR 2SC2785-HFE
Q7041	8-729-141-26	TRANSISTOR 2SC3622A-LK

<RESISTOR>

R7001	1-249-433-11	CARBON	22K	5%	1/4W	
R7002	1-249-433-11	CARBON	22K	5%	1/4W	
R7003	1-249-441-11	CARBON	100K	5%	1/4W	
R7006	1-249-430-11	CARBON	12K	5%	1/4W	
R7007	1-249-411-11	CARBON	330	5%	1/4W	
R7008	1-215-888-71	METAL OXIDE	220	5%	2W	F
R7009	1-249-389-11	CARBON	4.7	5%	1/4W	F
R7010	1-249-389-11	CARBON	4.7	5%	1/4W	F
R7011	1-215-888-71	METAL OXIDE	220	5%	2W	F
R7012	1-249-430-11	CARBON	12K	5%	1/4W	
R7014	1-249-411-11	CARBON	330	5%	1/4W	
R7016	1-249-441-11	CARBON	100K	5%	1/4W	
R7017	1-249-441-11	CARBON	100K	5%	1/4W	
R7018	1-247-889-00	CARBON	270K	5%	1/4W	
R7019	1-249-405-11	CARBON	100	5%	1/4W	F
R7023	1-215-445-00	METAL	10K	1%	1/4W	
R7024	1-215-445-00	METAL	10K	1%	1/4W	
R7030	1-215-439-00	METAL	5.6K	1%	1/4W	
R7031	1-215-439-00	METAL	5.6K	1%	1/4W	
R7041	1-247-895-00	CARBON	470K	5%	1/4W	
R7042	1-247-895-00	CARBON	470K	5%	1/4W	
R7043	1-247-893-11	CARBON	390K	5%	1/4W	
R7044	1-249-437-11	CARBON	47K	5%	1/4W	
R7100	1-207-670-00	WIREWOUND	1	10%	5W	F
R7101	1-207-671-00	WIREWOUND	1.5	10%	5W	F
R7102	1-207-671-00	WIREWOUND	1.5	10%	5W	F

<CONNECTOR>

YA2	*1-564-507-11	PLUG, CONNECTOR 4P
YA7	*1-564-505-11	PLUG, CONNECTOR 2P
YA8	*1-564-506-11	PLUG, CONNECTOR 3P
YA28	*1-564-508-11	PLUG, CONNECTOR 5P

****

*1-644-633-11 YG BOARD
****

1-533-189-11 HOLDER, FUSE
*4-341-751-01 EYELET (EY7106~EY7111)
4-382-854-11 SCREW (M3X10), P, SW (+)

<CAPACITOR>

C7201	1-125-463-11	ELECT(BLOCK)	2200MF	20%	63V	
C7202	1-124-607-11	ELECT	2200MF	20%	50V	
C7203	1-101-821-00	CERAMIC	0.0022MF		500V	
C7204	1-101-821-00	CERAMIC	0.0022MF		500V	
C7205	1-101-821-00	CERAMIC	0.0022MF		500V	
C7206	1-101-821-00	CERAMIC	0.0022MF		500V	

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifiés par une trame et par une marque ⚠ sont d'importance critique pour la sécurité. Ne les remplacer que par des pièces de numéro spécifié.

<DIODE>

REF.NO.	PART NO.	DESCRIPTION				REMARK
D7201	8-719-110-30	DIODE RD12ES-B1				
D7202⚠	8-719-312-09	DIODE RBA-402				
D7203⚠	8-719-312-09	DIODE RBA-402				

<FUSE>

F7201⚠	1-532-746-11	FUSE, GLASS TUBE 4A/125V				
F7202⚠	1-532-746-11	FUSE, GLASS TUBE 4A/125V				

<RESISTOR>

R7201	1-249-406-11	CARBON	120	5%	1/4W	F
R7202	1-215-879-71	METAL OXIDE	47K	5%	1W	F
R7203	1-215-879-71	METAL OXIDE	47K	5%	1W	F

<RELAY>

RY7201⚠	1-515-684-12	RELAY

<CONNECTOR>

YG1	*1-691-134-11	PIN, CONNECTOR (PC BOARD) 2P
YG2	*1-564-507-11	PLUG, CONNECTOR 4P
YG3	*1-564-507-11	PLUG, CONNECTOR 4P
YG5	*1-508-766-00	PIN, CONNECTOR (5MM PITCH) 4P
YG9	*1-508-765-00	PIN, CONNECTOR (5MM PITCH) 3P
YG12	*1-564-505-11	PLUG, CONNECTOR 2P

****

*A-1390-296-A N BOARD, COMPLETE
****

	*4-341-751-01	EYELET (EY11~EY14,EY24~EY37,EY40~EY54, EY57~EY59)
	*4-341-752-01	EYELET (EY1~EY10,EY15~EY23,EY38,EY39, EY55,EY56,EY60)
	*4-363-146-00	HEAT SINK, V.OUT
	4-382-854-01	SCREW (M3X8), P, SW (+)
	4-382-854-11	SCREW (M3X10), P, SW (+)
	4-383-023-01	SPACER, MICA

<CAPACITOR>

REF.NO.	PART NO.	DESCRIPTION				REMARK
C801	1-125-489-00	ELECT(BLOCK)	560MF	20%	200V	
C802	1-123-024-21	ELECT	33MF		160V	
C803	1-136-729-11	FILM	1.5MF	5%	400V	
C804	1-106-383-00	MYLAR	0.047MF		200V	
C805	1-102-030-00	CERAMIC	330PF	10%	500V	
C806	1-130-495-00	MYLAR	0.1MF	5%	50V	
C807	1-123-875-11	ELECT	10MF	20%	50V	
C808	1-126-183-11	ELECT	1000MF	20%	16V	
C809	1-124-903-11	ELECT	1MF	20%	50V	
C810	1-124-903-11	ELECT	1MF	20%	50V	
C811	1-124-902-00	ELECT	0.47MF	20%	50V	
C812	1-102-973-00	CERAMIC	100PF	5%	50V	
C813	1-102-244-00	CERAMIC	220PF	10%	500V	
C814	1-106-391-12	MYLAR	0.1MF	10%	200V	
C815	1-106-367-00	MYLAR	0.01MF	10%	200V	
C816	1-124-907-11	ELECT	10MF	20%	50V	
C817	1-124-119-00	ELECT	330MF	20%	16V	
C818	1-102-824-00	CERAMIC	470PF	5%	50V	
C819	1-124-907-11	ELECT	10MF	20%	50V	
C820	1-124-907-11	ELECT	10MF	20%	50V	
C821	1-124-907-11	ELECT	10MF	20%	50V	
C822	1-124-034-51	ELECT	33MF	20%	16V	
C823	1-124-907-11	ELECT	10MF	20%	50V	
C824	1-124-034-51	ELECT	33MF	20%	16V	
C825	1-124-034-51	ELECT	33MF	20%	16V	
C826	1-124-907-11	ELECT	10MF	20%	50V	
C827	1-124-907-11	ELECT	10MF	20%	50V	
C828	1-124-907-11	ELECT	10MF	20%	50V	
C829	1-124-034-51	ELECT	33MF	20%	16V	
C830	1-124-907-11	ELECT	10MF	20%	50V	
C831	1-106-220-00	MYLAR	0.1MF	10%	100V	
C832	1-124-907-11	ELECT	10MF	20%	50V	
C833	1-126-233-11	ELECT	22MF	20%	50V	
C834	1-102-121-00	CERAMIC	0.0022MF	10%	50V	
C835	1-124-927-11	ELECT	4.7MF	20%	50V	
C836	1-130-475-00	MYLAR	0.0022MF	5%	50V	
C837	1-136-169-00	FILM	0.22MF	5%	50V	
C838	1-130-475-00	MYLAR	0.0022MF	5%	50V	
C839	1-102-106-00	CERAMIC	100PF	10%	50V	
C840⚠	1-136-807-11	FILM	0.018MF	3%	1.6KV	
C841	1-136-729-11	FILM	1.5MF	5%	400V	
C842	1-130-471-00	MYLAR	0.001MF	5%	50V	
C844	1-106-391-12	MYLAR	0.1MF	10%	200V	
C850	1-136-169-00	FILM	0.22MF	5%	50V	
C851	1-124-907-11	ELECT	10MF	20%	50V	
C852	1-124-907-11	ELECT	10MF	20%	50V	
C853	1-106-220-00	MYLAR	0.1MF	10%	100V	
C854	1-126-329-11	ELECT	470MF	20%	50V	
C855	1-124-514-11	ELECT	100MF	20%	50V	
C856	1-162-114-00	CERAMIC	0.0047MF		2KV	
C858	1-124-119-00	ELECT	330MF	20%	16V	
C888	1-124-464-11	ELECT	0.22MF	20%	50V	

<DIODE>

D801	8-719-928-08	DIODE ERD28-08S
D802	8-719-300-80	DIODE RU-1C
D803	8-719-109-85	DIODE RD5.1ES-B2
D804	8-719-911-19	DIODE 1SS119
D805	8-719-911-19	DIODE 1SS119
D806	8-719-109-85	DIODE RD5.1ES-B2
D807	8-719-109-85	DIODE RD5.1ES-B2
D808	8-719-911-19	DIODE 1SS119
D809	8-719-911-19	DIODE 1SS119
D810	8-719-911-19	DIODE 1SS119
D811	8-719-109-85	DIODE RD5.1ES-B2
D812	8-719-911-19	DIODE 1SS119
D813	8-719-911-19	DIODE 1SS119
D814	8-719-911-19	DIODE 1SS119
D815	8-719-110-36	DIODE RD13ES-B2
D817	8-719-945-80	DIODE ERC06-15S
D818	8-719-911-19	DIODE 1SS119
D820	8-719-911-19	DIODE 1SS119
D850	8-719-109-71	DIODE RD3.9ES-B1
D851⚠	8-719-903-09	DIODE V30N
D852	8-719-911-19	DIODE 1SS119
D853⚠	8-719-903-09	DIODE V30N

<IC>

IC801	8-759-982-13	IC RC7812FA
IC802	8-759-103-93	IC UPC393C
IC803	8-759-990-82	IC TL082CP
IC804	8-759-103-93	IC UPC393C

N

Les composants identifies par une trame et une marque ⚠ sont critiques pour la securite. Ne les remplacer que par une piece portant le numero specifie

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

REF.NO.	PART NO.	DESCRIPTION	REMARK
IC805	8-759-100-75	IC UPC1394C	
		<COIL>	
L801	1-459-862-11	COIL, CHOKE 90UH	
L802	1-424-603-11	COIL, CHOKE 1.05MMH	
L803	1-459-313-00	COIL WITH CORE (HWC)	
L804	1-410-482-31	INDUCTOR 100UH	
L805 ⚠	1-424-603-11	COIL, CHOKE 1.05MMH	
		<CONNECTOR>	
N1	1-506-348-99	PIN, CONNECTOR 3P	
N2	*1-564-508-11	PLUG, CONNECTOR 5P	
N3	*1-508-766-00	PIN, CONNECTOR (5MM PITCH) 4P	
N4	*1-564-507-11	PLUG, CONNECTOR 4P	
N5	*1-564-508-11	PLUG, CONNECTOR 5P	
N6	*1-508-786-00	PIN, CONNECTOR (5MM PITCH) 2P	
N7	*1-508-765-00	PIN, CONNECTOR (5MM PITCH) 3P	
N8	*1-508-766-00	PIN, CONNECTOR (5MM PITCH) 4P	
N9	1-506-348-99	PIN, CONNECTOR 3P	
N10	*1-564-511-11	PLUG, CONNECTOR 8P	
N20	*1-560-126-00	PLUG, CONNECTOR (2.5MM) 6P	
N21	*1-560-123-00	PLUG, CONNECTOR (2.5MM) 3P	
N30	*1-508-784-00	PIN, CONNECTOR (5MM PITCH) 1P	
N851	*1-506-371-00	PIN, CONNECTOR 2P	
N853	*1-506-371-00	PIN, CONNECTOR 2P	
		<NEON LAMP>	
NL801	1-519-108-99	LAMP, NEON	
		<TRANSISTOR>	
Q801 ⚠	8-729-201-61	TRANSISTOR 2SC2555-1	
Q802	8-729-119-80	TRANSISTOR 2SC2688-LK	
Q803	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q804	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q805	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q806	8-729-119-80	TRANSISTOR 2SC2688-LK	
Q807	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q808	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q809	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q811 ⚠	8-729-805-07	TRANSISTOR 2SD1887-CA	
Q812	8-729-804-48	TRANSISTOR 2SC3675	
Q820	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q851	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q852	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q853	8-729-820-98	TRANSISTOR 2SC4256CB	
		<RESISTOR>	
R801	1-216-378-11	METAL OXIDE 5.6 5% 2W	F
R802	1-215-926-00	METAL OXIDE 33K 5% 3W	F
R803	1-215-926-00	METAL OXIDE 33K 5% 3W	F
R804	1-249-429-11	CARBON 10K 5% 1/4W	
R805	1-249-423-11	CARBON 3.3K 5% 1/4W	
R806	1-249-425-11	CARBON 4.7K 5% 1/4W	
R807	1-249-441-11	CARBON 100K 5% 1/4W	
R808	1-249-417-11	CARBON 1K 5% 1/4W	
R809	1-249-417-11	CARBON 1K 5% 1/4W	
R810	1-249-441-11	CARBON 100K 5% 1/4W	
R811	1-249-421-11	CARBON 2.2K 5% 1/4W	
R812	1-249-420-11	CARBON 1.8K 5% 1/4W	F
R813	1-215-921-11	METAL OXIDE 4.7K 5% 3W	F

REF.NO.	PART NO.	DESCRIPTION	REMARK
R814	1-249-409-11	CARBON 220 5% 1/4W	
R815	1-249-415-11	CARBON 680 5% 1/4W	
R816	1-214-777-00	METAL 100K 1% 1/4W	
R817	1-215-471-00	METAL 120K 1% 1/4W	
R818	1-215-471-00	METAL 120K 1% 1/4W	
R819	1-215-450-00	METAL 16K 1% 1/4W	
R820	1-215-451-00	METAL 18K 1% 1/4W	
R821	1-249-423-11	CARBON 3.3K 5% 1/4W	
R822	1-249-433-11	CARBON 22K 5% 1/4W	
R823	1-249-429-11	CARBON 10K 5% 1/4W	
R824	1-215-469-00	METAL 100K 1% 1/4W	
R825	1-215-453-00	METAL 22K 1% 1/4W	
R826	1-214-962-00	METAL 820K 1% 1/4W	
R827	1-214-764-00	METAL 30K 1% 1/4W	
R828	1-215-455-00	METAL 27K 1% 1/4W	
R829	1-215-455-00	METAL 27K 1% 1/4W	
R830	1-215-928-11	METAL OXIDE 68K 5% 3W	F
R831	1-215-928-11	METAL OXIDE 68K 5% 3W	F
R832	1-249-417-11	CARBON 1K 5% 1/4W	
R833	1-249-419-11	CARBON 1.5K 5% 1/4W	
R834	1-249-419-11	CARBON 1.5K 5% 1/4W	
R835	1-215-429-00	METAL 2.2K 1% 1/4W	
R836	1-215-435-00	METAL 3.9K 1% 1/4W	
R837	1-249-433-11	CARBON 22K 5% 1/4W	
R838	1-249-435-11	CARBON 33K 5% 1/4W	
R839	1-249-438-11	CARBON 56K 5% 1/4W	
R840	1-249-434-11	CARBON 27K 5% 1/4W	
R841	1-249-429-11	CARBON 10K 5% 1/4W	
R842	1-249-435-11	CARBON 33K 5% 1/4W	
R843	1-249-423-11	CARBON 3.3K 5% 1/4W	
R844	1-249-433-11	CARBON 22K 5% 1/4W	
R845	1-249-435-11	CARBON 33K 5% 1/4W	
R846	1-249-429-11	CARBON 10K 5% 1/4W	
R847	1-214-761-00	METAL 22K 1% 1/4W	
R848	1-215-429-00	METAL 2.2K 1% 1/4W	
R849	1-215-421-00	METAL 1K 1% 1/4W	
R850	1-215-429-00	METAL 2.2K 1% 1/4W	
R851	1-215-404-00	METAL 200 1% 1/4W	
⧓R852 ⚠		METAL 1/4W	
R853	1-215-469-00	METAL 100K 1% 1/4W	
R854	1-249-430-11	CARBON 12K 5% 1/4W	
R855	1-215-469-00	METAL 100K 1% 1/4W	
R856	1-249-430-11	CARBON 12K 5% 1/4W	
R857	1-249-433-11	CARBON 22K 5% 1/4W	
R858	1-249-413-11	CARBON 470 5% 1/4W	
R859	1-249-435-11	CARBON 33K 5% 1/4W	
R860	1-249-441-11	CARBON 100K 5% 1/4W	
R861	1-249-421-11	CARBON 2.2K 5% 1/4W	
R862	1-249-434-11	CARBON 27K 5% 1/4W	
R863	1-249-431-11	CARBON 15K 5% 1/4W	
R864	1-249-428-11	CARBON 8.2K 5% 1/4W	
R865	1-249-440-11	CARBON 82K 5% 1/4W	
R866	1-249-436-11	CARBON 39K 5% 1/4W	
R867	1-249-437-11	CARBON 47K 5% 1/4W	
R868	1-249-428-11	CARBON 8.2K 5% 1/4W	
R869	1-249-429-11	CARBON 10K 5% 1/4W	
R870	1-249-417-11	CARBON 1K 5% 1/4W	
R871	1-249-440-11	CARBON 82K 5% 1/4W	
R872	1-249-423-11	CARBON 3.3K 5% 1/4W	
R873	1-249-441-11	CARBON 100K 5% 1/4W	
R874	1-249-435-11	CARBON 33K 5% 1/4W	
R875	1-249-421-11	CARBON 2.2K 5% 1/4W	
R876	1-215-426-00	METAL 1.6K 1% 1/4W	

- The components identified by ⧓ in this manual have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. Should replacement be required, replace only with the value originally used.

Les composants identifiés par une trame et par une marque ⚠ sont d'une importance critique pour la sécurité. Ne les remplacer que par des pièces de numéro spécifié.

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

N **ZR** **ZG** **ZB** **S**

REF.NO.	PART NO.	DESCRIPTION				REMARK
R877	1-249-435-11	CARBON	33K	5%	1/4W	
R878	1-249-441-11	CARBON	100K	5%	1/4W	
R879	1-216-489-11	METAL OXIDE	27K	5%	3W	F
R880	1-249-429-11	CARBON	10K	5%	1/4W	
R881	1-214-761-00	METAL	22K	1%	1/4W	
R882	1-249-433-11	CARBON	22K	5%	1/4W	
R883	1-249-417-11	CARBON	1K	5%	1/4W	
R884	1-215-894-11	METAL OXIDE	2.2K	5%	2W	F
R885	1-249-438-11	CARBON	56K	5%	1/4W	
R886	1-249-414-11	CARBON	560	5%	1/4W	
R887	1-215-397-00	METAL	100	1%	1/4W	
R888	1-249-410-11	CARBON	270	5%	1/4W	
R889	1-249-417-11	CARBON	1K	5%	1/4W	
R890	1-249-417-11	CARBON	1K	5%	1/4W	
R891	1-216-489-11	METAL OXIDE	27K	5%	3W	F
R892	1-249-417-11	CARBON	1K	5%	1/4W	F
R893	1-215-453-00	METAL	22K	1%	1/4W	
R894	1-249-401-11	CARBON	47	5%	1/4W	
R895	1-202-731-00	SOLID	10M	20%	1/2W	
R896	1-260-111-11	CARBON	10K	5%	1/2W	
R897	1-247-881-00	CARBON	120K	5%	1/4W	
R898	1-202-730-00	SOLID	8.2M	20%	1/2W	
R899	1-249-429-11	CARBON	10K	5%	1/4W	
R903	1-202-541-81	SOLID	47	20%	1/2W	
R904	1-215-928-11	METAL OXIDE	68K	5%	3W	F
R905	1-215-911-11	METAL OXIDE	100	5%	3W	F

<SPARK GAP>

SG801	1-519-422-11	GAP, SPARK

<TRANSFORMER>

T801 ⚠	1-437-078-11	TRANSFORMER, HORIZONTAL DRIVE
T802	1-437-090-00	HDT
T803 ⚠	1-453-121-11	TRANSFORMER ASSY, FLYBACK (NX-1630B4)

****

*A-1390-297-A ZR BOARD, COMPLETE
****

*4-341-752-01 EYELET (EY1,EY2)

<CAPACITOR>

C1901	1-162-115-00	CERAMIC	330PF	10%	2KV
C1902	1-162-115-00	CERAMIC	330PF	10%	2KV

<RESISTOR>

R1901	1-202-822-00	SOLID	2.2K	20%	1/2W
R1902	1-202-822-00	SOLID	2.2K	20%	1/2W
R1903	1-249-414-11	CARBON	560	5%	1/4W
R1904	1-249-414-11	CARBON	560	5%	1/4W

<CONNECTOR>

ZR1	*1-564-522-11	PLUG, CONNECTOR 7P
ZR2	*1-564-518-11	PLUG, CONNECTOR 3P
ZR18	*1-691-292-11	PIN, CONNECTOR (PC BOARD) 3P

****

REF.NO. PART NO. DESCRIPTION REMARK

*A-1390-298-A ZG BOARD, COMPLETE
****

*4-341-752-01 EYELET (EY3,EY4)

<CAPACITOR>

C1911	1-162-115-00	CERAMIC	330PF	10%	2KV
C1912	1-162-115-00	CERAMIC	330PF	10%	2KV

<RESISTOR>

R1911	1-202-822-00	SOLID	2.2K	20%	1/2W
R1912	1-202-822-00	SOLID	2.2K	20%	1/2W
R1913	1-249-414-11	CARBON	560	5%	1/4W
R1914	1-249-414-11	CARBON	560	5%	1/4W

<CONNECTOR>

ZG2	*1-564-523-11	PLUG, CONNECTOR 8P
ZG19	*1-691-292-11	PIN, CONNECTOR (PC BOARD) 3P

****

*A-1390-299-A ZB BOARD, COMPLETE
****

*4-341-752-01 EYELET (EY5,EY6)

<CAPACITOR>

C1921	1-162-115-00	CERAMIC	330PF	10%	2KV
C1922	1-162-115-00	CERAMIC	330PF	10%	2KV

<RESISTOR>

R1921	1-202-822-00	SOLID	2.2K	20%	1/2W
R1922	1-202-822-00	SOLID	2.2K	20%	1/2W
R1923	1-249-414-11	CARBON	560	5%	1/4W
R1924	1-249-414-11	CARBON	560	5%	1/4W

<CONNECTOR>

ZB3	*1-564-524-11	PLUG, CONNECTOR 9P
ZB20	*1-691-292-11	PIN, CONNECTOR (PC BOARD) 3P

****

*1-643-669-11 S BOARD
****

<CAPACITOR>

C3403	1-164-161-11	CERAMIC CHIP	0.0022MF	10%	50V
C3408	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C3409	1-124-477-11	ELECT	47MF	20%	16V
C3411	1-124-034-51	ELECT	33MF	20%	16V

<IC>

IC3401	8-759-403-44	IC MN1280-S
IC3402	8-759-070-42	IC M37201M6-A18FP

<COIL>

L3401	1-408-421-00	INDUCTOR	100UH

S **U**

<RESISTOR>

REF.NO.	PART NO.	DESCRIPTION				REMARK
R3401	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R3402	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R3403	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R3404	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R3405	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R3406	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R3407	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R3408	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R3409	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R3476	1-216-295-00	METAL GLAZE	0	5%	1/10W	

<CONNECTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
S45	*1-564-511-71	PLUG, CONNECTOR 8P	
S46	*1-564-506-11	PLUG, CONNECTOR 3P	

<CRYSTAL>

REF.NO.	PART NO.	DESCRIPTION	REMARK
X3401	1-577-082-11	VIBRATOR, CERAMIC	

****

*A-1394-404-A U BOARD, COMPLETE
****

*4-341-751-01 EYELET (EY1003~EY1005)

<CAPACITOR>

REF.NO.	PART NO.	DESCRIPTION				REMARK
C1004	1-102-125-00	CERAMIC	0.0047MF	10%	50V	
C1005	1-126-301-11	ELECT	1MF	20%	50V	
C1006	1-164-096-11	CERAMIC	0.01MF		50V	
C1007	1-124-598-11	ELECT	22MF	20%	25V	
C1008	1-124-598-11	ELECT	22MF	20%	25V	
C1010	1-124-465-00	ELECT	0.47MF	20%	50V	
C1011	1-124-465-00	ELECT	0.47MF	20%	50V	
C1012	1-124-465-00	ELECT	0.47MF	20%	50V	
C1013	1-102-125-00	CERAMIC	0.0047MF	10%	50V	
C1014	1-126-163-11	ELECT	4.7MF	20%	50V	
C1016	1-126-163-11	ELECT	4.7MF	20%	50V	
C1018	1-126-301-11	ELECT	1MF	20%	50V	
C1020	1-124-242-00	ELECT	33MF	20%	25V	
C1021	1-124-465-00	ELECT	0.47MF	20%	50V	
C1022	1-124-242-00	ELECT	33MF	20%	25V	
C1026	1-102-949-00	CERAMIC	12PF	5%	50V	
C1027	1-102-949-00	CERAMIC	12PF	5%	50V	
C1028	1-124-242-00	ELECT	33MF	20%	25V	
C1029	1-124-282-00	ELECT	22MF	20%	16V	
C1030	1-124-478-11	ELECT	100MF	20%	25V	
C1031	1-102-963-00	CERAMIC	33PF	5%	50V	
C1034	1-124-282-00	ELECT	22MF	20%	16V	
C1036	1-124-282-00	ELECT	22MF	20%	16V	
C1037	1-124-282-00	ELECT	22MF	20%	16V	
C1039	1-124-478-11	ELECT	100MF	20%	25V	
C1047	1-124-465-00	ELECT	0.47MF	20%	50V	
C1048	1-126-301-11	ELECT	1MF	20%	50V	
C1049	1-124-598-11	ELECT	22MF	20%	25V	
C1051	1-124-465-00	ELECT	0.47MF	20%	50V	
C1055	1-124-589-11	ELECT	47MF	20%	16V	
C1056	1-124-499-11	ELECT	1MF	20%	50V	
C1057	1-124-768-11	ELECT	4.7MF	20%	50V	
C1059	1-124-499-11	ELECT	1MF	20%	50V	
C1060	1-124-499-11	ELECT	1MF	20%	50V	
C1061	1-124-499-11	ELECT	1MF	20%	50V	
C1062	1-102-129-00	CERAMIC	0.01MF	10%	50V	
C1063	1-124-768-11	ELECT	4.7MF	20%	50V	
C1066	1-126-101-11	ELECT	100MF	20%	16V	

<DIODE>

REF.NO.	PART NO.	DESCRIPTION	REMARK
D1005	8-719-110-36	DIODE RD13ES-B2	
D1009	8-719-110-36	DIODE RD13ES-B2	
D1010	8-719-110-36	DIODE RD13ES-B2	
D1011	8-719-110-36	DIODE RD13ES-B2	
D1012	8-719-110-36	DIODE RD13ES-B2	
D1013	8-719-110-36	DIODE RD13ES-B2	
D1017	8-719-110-36	DIODE RD13ES-B2	
D1018	8-719-110-36	DIODE RD13ES-B2	
D1019	8-719-110-36	DIODE RD13ES-B2	
D1020	8-719-109-66	DIODE RD3.3ES-B2	
D1021	8-719-109-66	DIODE RD3.3ES-B2	
D1022	8-719-109-66	DIODE RD3.3ES-B2	

<IC>

REF.NO.	PART NO.	DESCRIPTION	REMARK
IC1002	8-752-056-50	IC CXA1545S	
IC1011	8-759-145-57	IC UPC4557C	

<COIL>

REF.NO.	PART NO.	DESCRIPTION		REMARK
L1001	1-408-422-00	INDUCTOR	120UH	
L1002	1-408-422-00	INDUCTOR	120UH	

<TRANSISTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
Q1009	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q1010	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q1016	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q1017	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q1018	8-729-141-26	TRANSISTOR 2SC3622A-LK	
Q1019	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q1020	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q1021	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q1022	8-729-141-26	TRANSISTOR 2SC3622A-LK	
Q1023	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q1029	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q1030	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q1031	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q1032	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q1033	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q1034	8-729-119-76	TRANSISTOR 2SA1175-HFE	

<RESISTOR>

REF.NO.	PART NO.	DESCRIPTION				REMARK
R1011	1-249-435-11	CARBON	33K	5%	1/4W	
R1012	1-249-434-11	CARBON	27K	5%	1/4W	
R1013	1-249-417-11	CARBON	1K	5%	1/4W	
R1014	1-249-441-11	CARBON	100K	5%	1/4W	
R1015	1-215-437-00	METAL	4.7K	1%	1/4W	
R1016	1-249-441-11	CARBON	100K	5%	1/4W	
R1017	1-249-405-11	CARBON	100	5%	1/4W	
R1018	1-249-427-11	CARBON	6.8K	5%	1/4W	
R1019	1-249-427-11	CARBON	6.8K	5%	1/4W	
R1023	1-249-405-11	CARBON	100	5%	1/4W	
R1026	1-215-437-00	METAL	4.7K	1%	1/4W	
R1028	1-249-434-11	CARBON	27K	5%	1/4W	
R1029	1-249-435-11	CARBON	33K	5%	1/4W	
R1030	1-249-417-11	CARBON	1K	5%	1/4W	

U **UT**

REF.NO.	PART NO.	DESCRIPTION				REMARK
R1032	1-249-417-11	CARBON	1K	5%	1/4W	
R1033	1-249-393-11	CARBON	10	5%	1/4W	F
R1034	1-249-417-11	CARBON	1K	5%	1/4W	
R1036	1-249-440-11	CARBON	82K	5%	1/4W	
R1037	1-249-440-11	CARBON	82K	5%	1/4W	
R1038	1-249-440-11	CARBON	82K	5%	1/4W	
R1043	1-249-417-11	CARBON	1K	5%	1/4W	
R1046	1-249-413-11	CARBON	470	5%	1/4W	
R1048	1-249-405-11	CARBON	100	5%	1/4W	
R1050	1-249-405-11	CARBON	100	5%	1/4W	
R1051	1-249-417-11	CARBON	1K	5%	1/4W	
R1052	1-249-413-11	CARBON	470	5%	1/4W	
R1054	1-249-405-11	CARBON	100	5%	1/4W	
R1055	1-249-413-11	CARBON	470	5%	1/4W	
R1056	1-249-405-11	CARBON	100	5%	1/4W	
R1057	1-249-441-11	CARBON	100K	5%	1/4W	
R1059	1-249-405-11	CARBON	100	5%	1/4W	
R1061	1-249-409-11	CARBON	220	5%	1/4W	
R1062	1-249-441-11	CARBON	100K	5%	1/4W	
R1063	1-249-409-11	CARBON	220	5%	1/4W	
R1066	1-215-437-00	METAL	4.7K	1%	1/4W	
R1067	1-215-437-00	METAL	4.7K	1%	1/4W	
R1068	1-215-437-00	METAL	4.7K	1%	1/4W	
R1069	1-215-437-00	METAL	4.7K	1%	1/4W	
R1070	1-249-411-11	CARBON	330	5%	1/4W	
R1071	1-249-431-11	CARBON	15K	5%	1/4W	
R1073	1-249-431-11	CARBON	15K	5%	1/4W	
R1077	1-249-418-11	CARBON	1.2K	5%	1/4W	
R1078	1-249-418-11	CARBON	1.2K	5%	1/4W	
R1079	1-249-405-11	CARBON	100	5%	1/4W	
R1080	1-215-423-00	METAL	1.2K	1%	1/4W	
R1081	1-215-421-00	METAL	1K	1%	1/4W	
R1089	1-249-405-11	CARBON	100	5%	1/4W	
R1094	1-249-405-11	CARBON	100	5%	1/4W	
R1096	1-249-405-11	CARBON	100	5%	1/4W	
R1099	1-249-413-11	CARBON	470	5%	1/4W	
R1110	1-249-405-11	CARBON	100	5%	1/4W	
R1116	1-249-441-11	CARBON	100K	5%	1/4W	
R1118	1-249-413-11	CARBON	470	5%	1/4W	
R1120	1-249-413-11	CARBON	470	5%	1/4W	
R1121	1-249-441-11	CARBON	100K	5%	1/4W	
R1122	1-249-413-11	CARBON	470	5%	1/4W	
R1133	1-249-405-11	CARBON	100	5%	1/4W	
R1134	1-249-405-11	CARBON	100	5%	1/4W	
R1138	1-249-415-11	CARBON	680	5%	1/4W	
R1139	1-249-413-11	CARBON	470	5%	1/4W	
R1140	1-249-413-11	CARBON	470	5%	1/4W	
R1141	1-249-413-11	CARBON	470	5%	1/4W	
R1142	1-249-415-11	CARBON	680	5%	1/4W	
R1147	1-249-405-11	CARBON	100	5%	1/4W	
R1148	1-249-405-11	CARBON	100	5%	1/4W	
R1149	1-249-417-11	CARBON	1K	5%	1/4W	
R1150	1-249-405-11	CARBON	100	5%	1/4W	
R1151	1-249-405-11	CARBON	100	5%	1/4W	
R1152	1-249-417-11	CARBON	1K	5%	1/4W	

<CONNECTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
U12	1-573-300-11	CONNECTOR, BOARD TO BOARD 18P	
U13	1-573-300-11	CONNECTOR, BOARD TO BOARD 18P	
U16	*1-564-513-11	PLUG, CONNECTOR 10P	
U22	1-566-942-11	CONNECTOR,HINGE(RECEPTACLE)30P	
U23	*1-566-367-11	CONNECTOR, HINGE (RECEPTACLE)	
U32	*1-564-510-11	PLUG, CONNECTOR 7P	

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*A-1394-405-A UT BOARD, COMPLETE
****

*4-341-751-01 EYELET (EY1101)

<CAPACITOR>

REF.NO.	PART NO.	DESCRIPTION				REMARK
C1152	1-102-074-00	CERAMIC	0.001MF	10%	50V	
C1153	1-164-096-11	CERAMIC	0.01MF		50V	
C1154	1-164-096-11	CERAMIC	0.01MF		50V	
C1155	1-126-103-11	ELECT	470MF	20%	16V	
C1158	1-124-598-11	ELECT	22MF	20%	25V	
C1159	1-124-598-11	ELECT	22MF	20%	25V	
C1160	1-124-598-11	ELECT	22MF	20%	25V	
C1161	1-124-598-11	ELECT	22MF	20%	25V	
C1164	1-126-103-11	ELECT	470MF	20%	16V	
C1165	1-126-301-11	ELECT	1MF	20%	50V	
C1166	1-126-301-11	ELECT	1MF	20%	50V	
C1167	1-126-301-11	ELECT	1MF	20%	50V	
C1168	1-126-301-11	ELECT	1MF	20%	50V	

<DIODE>

REF.NO.	PART NO.	DESCRIPTION	REMARK
D1151	8-719-110-36	DIODE RD13ES-B2	
D1152	8-719-110-36	DIODE RD13ES-B2	
D1158	8-719-110-36	DIODE RD13ES-B2	
D1159	8-719-110-36	DIODE RD13ES-B2	
D1160	8-719-110-36	DIODE RD13ES-B2	
D1161	8-719-110-36	DIODE RD13ES-B2	
D1162	8-719-110-36	DIODE RD13ES-B2	
D1163	8-719-110-36	DIODE RD13ES-B2	
D1164	8-719-110-36	DIODE RD13ES-B2	
D1165	8-719-110-36	DIODE RD13ES-B2	
D1166	8-719-110-36	DIODE RD13ES-B2	
D1167	8-719-110-36	DIODE RD13ES-B2	
D1168	8-719-110-36	DIODE RD13ES-B2	
D1169	8-719-110-36	DIODE RD13ES-B2	
D1170	8-719-110-36	DIODE RD13ES-B2	
D1171	8-719-110-36	DIODE RD13ES-B2	

<JACK>

REF.NO.	PART NO.	DESCRIPTION	REMARK
J1001	1-537-188-11	TERMINAL, PUSH (8P)	
J1003	1-573-970-11	BLOCK, (S) TERMINAL	
J1004	1-695-304-11	TERMINAL BLOCK, S	
J1005	1-695-054-11	JACK BLOCK, PIN	
J1006	1-573-970-11	BLOCK, (S) TERMINAL	
J1007	1-573-969-11	JACK BLOCK, PIN	
J1008	1-573-969-11	JACK BLOCK, PIN	

<RESISTOR>

REF.NO.	PART NO.	DESCRIPTION				REMARK
R1153	1-249-403-11	CARBON	68	5%	1/4W	
R1154	1-249-426-11	CARBON	5.6K	5%	1/4W	
R1158	1-247-804-11	CARBON	75	5%	1/4W	
R1164	1-247-895-00	CARBON	470K	5%	1/4W	
R1165	1-247-895-00	CARBON	470K	5%	1/4W	
R1166	1-247-895-00	CARBON	470K	5%	1/4W	
R1167	1-247-895-00	CARBON	470K	5%	1/4W	
R1168	1-247-895-00	CARBON	470K	5%	1/4W	
R1169	1-249-403-11	CARBON	68	5%	1/4W	
R1170	1-249-403-11	CARBON	68	5%	1/4W	

UT

Les composants identifies par une trame et une marque ⚠ sont critiques pour la securite. Ne les remplacer que par une piece portant le numero specifie.

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

REF.NO.	PART NO.	DESCRIPTION				REMARK
R1171	1-247-895-00	CARBON	470K	5%	1/4W	
R1172	1-247-895-00	CARBON	470K	5%	1/4W	
R1173	1-247-804-11	CARBON	75	5%	1/4W	
R1174	1-247-895-00	CARBON	470K	5%	1/4W	
R1175	1-247-895-00	CARBON	470K	5%	1/4W	
R1176	1-247-804-11	CARBON	75	5%	1/4W	
R1177	1-247-804-11	CARBON	75	5%	1/4W	
R1178	1-247-895-00	CARBON	470K	5%	1/4W	
R1179	1-247-895-00	CARBON	470K	5%	1/4W	
R1180	1-247-804-11	CARBON	75	5%	1/4W	
R1181	1-247-804-11	CARBON	75	5%	1/4W	
R1182	1-247-804-11	CARBON	75	5%	1/4W	
R1183	1-247-895-00	CARBON	470K	5%	1/4W	
R1184	1-247-895-00	CARBON	470K	5%	1/4W	
R1185	1-247-895-00	CARBON	470K	5%	1/4W	
R1186	1-247-895-00	CARBON	470K	5%	1/4W	
R1187	1-247-804-11	CARBON	75	5%	1/4W	
R1188	1-247-804-11	CARBON	75	5%	1/4W	
R1191	1-215-437-00	METAL	4.7K	1%	1/4W	
R1192	1-215-437-00	METAL	4.7K	1%	1/4W	
R1193	1-215-437-00	METAL	4.7K	1%	1/4W	
R1194	1-215-437-00	METAL	4.7K	1%	1/4W	
R1195	1-249-426-11	CARBON	5.6K	5%	1/4W	
R1196	1-249-426-11	CARBON	5.6K	5%	1/4W	

<SWITCH>

REF.NO.	PART NO.	DESCRIPTION	REMARK
S1150	1-572-198-11	SWITCH, KEYBOARD	

<CONNECTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
UT9	*1-564-517-11	PLUG, CONNECTOR 2P	
UT11	*1-564-519-11	PLUG, CONNECTOR 4P	
UT22	*1-566-941-11	CONNECTOR, HINGE (TAB) 30P	
UT23	*1-566-641-11	CONNECTOR, HINGE (TAB) 18P	
UT35	*1-564-518-11	PLUG, CONNECTOR 3P	
UT38	*1-564-517-11	PLUG, CONNECTOR 2P	

****

MISCELLANEOUS
****

REF.NO.	PART NO.	DESCRIPTION		REMARK
	⚠1-241-744-11	RESISTOR ASSY (HIGH-VOLTAGE)		
	⚠1-417-178-11	SELECTOR, ANTENNA (AS-2)		
	⚠1-451-396-21	DEFLECTION YOKE (Y936PA)		
	⚠1-452-443-13	NECK ASSY, PICTURE TUBE(NA367)		
	⚠1-453-108-11	DC BLOCK, HIGH-VOLTAGE		
	1-504-141-11	SPEAKER (13CM)		
	1-544-580-21	SPEAKER (2.5CM)		
	*1-555-400-00	CABLE, PIN		
	*1-557-056-31	CABLE, P-P		
	⚠1-696-002-12	CORD, POWER (WITH NOISE FILTER)		
	⚠8-736-631-05	PICTURE TUBE (SD-249 (G))		
	⚠8-736-632-05	PICTURE TUBE (SD-249 (B))		
	⚠8-736-633-05	PICTURE TUBE (SD-249 (R))		
⧓R900	⚠	METAL	1/4W	
⧓R901	⚠	METAL	1/4W	
⧓R902	⚠	METAL	1/4W	
T7201	⚠1-423-311-11	TRANSFORMER, POWER		

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ACCESSORIES AND PACKING MTAERIALS
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<KPR-53XBR15(U/C)>

REF.NO.	PART NO.	DESCRIPTION	REMARK
	3-755-643-21	MANUAL, INSTRUCTION (ENGLISH)	
	3-755-643-31	MANUAL, INSTRUCTION (FRENCH) (KPR-53XBR15(C))	
	3-755-643-41	MANUAL, INSTRUCTION (SPANISH) (KPR-53XBR15(U))	
	*4-030-895-01	JOINT	
	*4-037-320-01	CUSHION (UPPER) (ASSY)	
	*4-037-321-01	CUSHION (LOWER) (ASSY)	
	*4-037-326-01	INDIVIDUAL CARTON	
	*4-037-327-01	TRAY	
	*4-037-328-01	PLATE, TOP	
	*4-037-329-01	PLATE, BOTTOM	
	*4-388-954-01	BAG, PROTECTION	

<KPR-46XBR15(U)>

REF.NO.	PART NO.	DESCRIPTION	REMARK
	3-755-643-21	MANUAL, INSTRUCTION (ENGLISH)	
	3-755-643-41	MANUAL, INSTRUCTION (SPANISH)	
	*4-030-895-01	JOINT	
	*4-037-670-01	CUSHION (UPPER) (ASSY)	
	*4-037-671-01	CUSHION (LOWER) (ASSY)	
	*4-037-672-01	INDIVIDUAL CARTON	
	*4-037-673-01	TRAY	
	*4-037-674-01	PLATE, TOP	
	*4-037-675-01	PLATE, BOTTOM	
	*4-388-954-01	BAG, PROTECTION	

REMOTE COMMANDER

REF.NO.	PART NO.	DESCRIPTION	REMARK
	1-693-156-11	REMOTE COMMANDER (RM-Y114)	
	9-902-623-01	COVER, BATTERY (FOR RM-Y114)	
	9-902-624-01	COVER (FOR RM-Y114)	

- The components identified by ⧓ in this manual have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. Should replacement be required, replace only with the value originally used.

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